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BALTIMORE, SEPTEMBER 11, 1913.

### SOUTHERN TEXTILE GROWTH.

Cotton mills in thirteen cotton-grow-  
ing States of the South took in the sea-  
son just ended 2,969,559 bales, or 600-  
000 more bales of cotton than the South  
raised in the season of 1893-9.

The 1912-13 Southern takings gave  
occupation to 12,290,251 spindles, seven  
times the spindle equipment of Southern  
mills in 1890, and nearly 2,000,000 more  
spindles than all the active spindles in  
the whole country in 1880.

In the following table are shown the  
figures of advance made in the South-  
ern textile industry since 1893, in com-  
parison with the industry in the rest of  
the country:

Year ending August 31.	Southern Mills, Bales.	Northern Mills, Bales.	Total Bales.	Crop. Bales.
1893.....	743,848	1,687,286	2,431,134	6,700,365
1894.....	718,515	1,601,173	2,319,688	7,549,817
1895.....	802,838	2,083,839	2,946,677	9,901,251
1896.....	904,701	1,600,271	2,504,972	7,157,346
1897.....	1,042,671	1,804,680	2,847,351	8,757,964
1898.....	1,231,841	2,211,740	3,443,581	11,199,994
1899.....	1,399,390	2,190,095	3,589,494	11,274,840
1900.....	1,597,112	2,068,300	3,665,412	9,436,416
1901.....	1,620,931	1,967,570	3,588,501	10,383,422
1902.....	1,937,971	2,050,774	3,988,745	10,680,680
1903.....	2,000,729	1,967,635	3,968,364	10,727,559
1904.....	1,919,252	2,026,967	3,946,219	10,011,374
1905.....	2,163,505	2,282,145	4,445,650	13,565,885
1906.....	2,374,225	2,349,478	4,723,703	11,345,988
1907.....	2,439,108	2,526,390	4,965,498	13,510,982
1908.....	2,193,277	1,896,661	4,089,938	11,571,966
1909.....	2,559,873	2,680,118	5,239,991	13,825,457
1910.....	2,341,303	1,993,904	4,335,207	10,609,668
1911.....	2,363,616	1,993,576	4,357,192	12,120,095
1912.....	2,744,067	2,631,432	5,375,499	16,138,426
1913.....	2,969,559	2,488,377	5,457,936	14,167,115

Between 1893 and 1913 the mills in  
thirteen Southern cotton-growing States  
increased their takings of cotton from  
743,848 bales to 2,969,559 bales, or by  
2,225,711 bales, equal to 293.2 per cent.,  
while in the rest of the country the in-  
crease in the takings was from 1,687-  
286 bales to 2,488,377 bales, or by 801-  
091 bales, equal to 47.5 per cent. In  
1897 Southern mills passed the million  
bale mark, in 1900 the million and a half  
bale mark and in 1903 the two million  
bale mark. In that year for the first  
time Southern mills took more Ameri-  
can-grown cotton than the mills in the  
rest of the country, and that feat was  
repeated in 1906, 1908, 1910, 1911, 1912  
and 1913, when the Southern takings  
approached within less than 31,000  
bales of the three million bale mark,  
and were greater than the takings by  
all the mills of the country as late as  
1897.

In 1893 Southern mill takings repre-  
sented 30.6 per cent. of the total takings  
by all the mills in the country, and in  
1913 they represented 54.4 per cent. of  
the takings.

While this increase of takings by  
Southern mills has been underway  
there has been a steady advance by  
those mills in the character of the yarns  
spun, together with an expansion in the  
loom equipment of the section. Both as  
to spindles and as to looms, the South  
has a greater number than the whole  
country had in 1880, and this equip-  
ment suggests both the multiplicity  
and the multifariousness of Southern  
textile activities, producing at least a  
hundred different lines of goods, spun,  
woven and knit.

In 1880 nearly 68 per cent. of the  
Southern cotton crop went abroad. The  
4,500,047 bales exported in 1893 repre-  
sented 67.3 per cent. of the total crop,  
but the 8,619,719 bales exported in 1913  
were only 60.8 per cent. of the crop.

Thus is indicated a gradual propor-  
tionate decline in exports of Southern  
cotton reflecting the increasing use of  
the crop in this country. But of the  
total 1913 crop 10,099,096 bales were  
shipped from the South, some going to  
other parts of the country and some to  
England and the Continent. It is grati-

fying to note the steady increase in the  
use by Southern mills of Southern-  
grown cotton, but as long as 71 per cent.  
of that cotton is spun elsewhere, so  
long is the South demonstrating that  
it is not making the most of its oppor-  
tunities in textile lines.

Details of the developments of the  
year 1912-13 in cotton-growing and tex-  
tile manufacturing in thirteen cotton-  
growing States of the South, taken  
from the valuable annual report of Col.  
Henry G. Hester, secretary of the New  
Orleans Cotton Exchange, are published  
on other pages of this issue.

### THE SOUTH'S LUMBER RE- SOURCES.

The 21,607,519,000 feet of lumber cut  
in the South last year was 55 per cent.  
of the 39,158,414,000 feet cut in the  
United States. The 1912 cut in the  
South was within 1,800,000,000 feet of  
the cut in the whole country in 1890.  
In the twenty-two years the South's cut  
increased by 15,146,535,000 feet, or at  
the rate of 234.4 per cent., while the  
increase in the rest of the country was  
only 517,026,000 feet, or at the rate of  
3 per cent. The tendency to turn more  
and more to the South as the source of  
the country's lumber supply is indicated  
in the following table, showing the  
marked changes that occurred in the  
cuts of different woods between 1907  
and 1911:

Feet of Lumber Cut, by Woods.

	Softwoods.		United States.	
	1911.	1907.	1911.	1907.
Yellow pine . . . . .	12,832,889,000	13,116,059,000	12,896,706,000	13,215,185,000
Cypress . . . . .	979,251,000	754,182,000	981,527,000	757,639,000
Hemlock . . . . .	368,327,000	422,348,000	2,555,308,000	3,373,016,000
Spruce . . . . .	288,692,000	244,165,000	1,261,728,000	1,726,797,000
White pine . . . . .	160,428,000	185,988,000	3,230,584,000	4,193,787,000
Cedar . . . . .	71,461,000	21,873,000	374,925,000	251,002,000
Larch . . . . .	78,000	.....	368,216,000	211,076,000
Balsam fir . . . . .	58,000	.....	83,375,000	.....
Douglas fir . . . . .	.....	.....	5,054,243,000	4,748,872,000
Redwood . . . . .	.....	.....	489,768,000	569,450,000
Western pine . . . . .	.....	.....	1,339,700,000	1,526,116,000
White fir . . . . .	.....	.....	124,307,000	146,508,000
Sugar pine . . . . .	.....	.....	117,987,000	115,005,000
Lodgepole pine . . . . .	.....	.....	33,014,000	.....
Tamarack . . . . .	.....	.....	.....	113,483,000
Hardwoods.				
Oak . . . . .	2,352,890,000	2,590,536,000	3,008,444,000	3,718,760,000
Red gum . . . . .	562,945,000	644,223,000	582,967,000	689,200,000
Poplar . . . . .	560,498,000	748,958,000	659,475,000	865,536,000
Chestnut . . . . .	312,806,000	368,740,000	529,022,000	653,239,000
Hickory . . . . .	182,089,000	130,770,000	240,217,000	203,211,000
Cottonwood . . . . .	162,429,000	262,027,000	198,629,000	290,574,000
Maple . . . . .	121,245,000	75,598,000	951,667,000	939,073,000
Ash . . . . .	101,889,000	110,336,000	214,398,000	252,040,000
Tupelo . . . . .	93,050,000	68,842,000	98,142,000	68,842,000
Beech . . . . .	81,052,000	68,258,000	403,881,000	439,005,000
Basswood . . . . .	68,933,000	54,290,000	304,621,000	381,088,000
Elm . . . . .	46,358,000	46,179,000	236,108,000	260,679,000
Sycamore . . . . .	28,965,000	25,675,000	42,836,000	46,044,000
Birch . . . . .	25,131,000	7,297,000	432,571,000	387,614,000
Walnut . . . . .	13,901,000	13,207,000	38,293,000	41,490,000
All others . . . . .	47,356,000	21,223,000	69,548,000	80,973,000
Total . . . . .	19,462,800,000	19,986,774,000	37,003,207,000	40,256,154,000

According to the figures here pre-  
sented, the South is cutting annually of  
the twenty-nine varieties of lumber  
produced in sufficient quantities to  
justify separate classification 50.8 per  
cent of the soft woods and 58.8 per

cent of the hardwoods cut in the whole  
country. It is cutting 12,832,889,000  
feet, or 99.5 per cent. of the yellow  
pine; 2,352,890,000 feet, or 75.9 per  
cent. of the oak; 979,251,000 feet, or 99.7  
per cent. of the cypress; 562,945,000  
feet, or 96.6 per cent. of the red gum;  
560,498,000 feet, or 84.9 per cent. of the  
poplar; 368,327,000 feet, or 14.4 per  
cent. of the hemlock; 312,806,000 feet,  
or 59.1 per cent. of the chestnut; 288-  
692,000 feet, or 22.8 per cent. of the  
spruce; 182,089,000 feet, or 75.8 per  
cent. of the hickory; 162,429,000 feet,  
or 81.8 per cent. of the cottonwood;  
160,428,000 feet, or 4.9 per cent. of the  
white pine; 121,245,000 feet, or 12.7 per  
cent. of the maple; 101,889,000 feet, or  
47.5 per cent. of the ash; 93,050,000  
feet, or 94.5 per cent. of the tupelo;  
81,052,000 feet, or 20.6 per cent. of the  
beech; 71,461,000 feet, or 19 per cent.  
of the cedar; 68,933,000 feet, or 22.6  
per cent. of the basswood; 46,358,000  
feet, or 19.6 per cent. of the elm; 28-  
965,000 feet, or 67.6 per cent. of the  
sycamore; 25,131,000 feet, or 5.8 per  
cent. of the birch; 13,901,000 feet, or  
36.3 per cent. of the walnut, and 47-  
356,000 feet, or 68 per cent. of all other  
hardwoods.

Between 1907 and 1911 the propor-  
tion of lumber cut in the South in-  
creased for all woods, with the excep-  
tion of poplar, cottonwood and tupelo,  
and in 1911 Arkansas led the States in

passed the combined cuts of all other woods in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Texas and Virginia. In those States, exclusive of Oklahoma and Virginia, are about 150,000 square miles of land still covered by yellow pine forests. The cypress of the country is found along the Atlantic and Gulf coasts from Virginia to Texas, and in the lowlands of the Mississippi Valley from South-eastern Missouri to the Gulf. Hemlock is in considerable quantities in Maryland, Kentucky, North Carolina, Tennessee, Virginia and West Virginia, and spruce and white pine in West Virginia.

The greatest lumber cut in the country was in 1909, more than 44,000,000,000 feet. The Pacific Coast is likely to increase its annual cut, but in the main any large expansion in lumbering operations will be in the South, though, in spite of the increase in the number of the uses of wood, it may hardly be expected that the annual cut of the future will show such a rapid advance as that which has characterized the past twenty-five or thirty years, and one of the influential factors in retarding the cut comparatively will be the expansion in the use of substitutes for wood in construction.

The limit to the proportion of certain cuts in the South has about been reached. But an enlargement of the proportion in the case of other cuts has already been indicated in the changes between 1907 and 1911.

#### THE SOUTH'S IRON INDUSTRY.

In his contribution to "Mineral Resources of the United States" for 1912, Edward Wheeler Parker of the United States Geological Survey returns to his practical suggestion turning upon the fact that West Virginia is shipping so much of its coke to other States to be used in the iron industry. In 1912, with the passing of Indiana from sixth place to third in the rank of coke-producing States, West Virginia dropped to fourth place, having been passed by Alabama in 1911, when that State advanced to second place. Mr. Parker says:

Although West Virginia has apparently retrograded as a manufacturer of coke, at least relatively, account should be taken of the fact that many coking establishments in other States draw their supplies of coal from West Virginia mines. This is particularly true of the retort oven plants in Ohio, Indiana and Illinois. In 1912 the quantity of coal made into coke in West Virginia was 4,061,702 short tons. It is probable that the quantity of West Virginia coal made into coke in ovens outside of the State exceeded 5,000,000 short tons. In the coke-making, as in the coal-mining lines of industry, West Virginia suffers from having relatively little home consumption for her products. Eighty per cent. of the coal mined in the State, and nearly all of the coke, is sent to consumers in other States. Next to Pennsylvania, West Virginia possesses more wealth in supplies of coking and other high-grade coals than any other State in the Union, but as long as both the coal and the coke continue to be shipped out of the State, West Virginia will not attain the position she should occupy as a manufacturing State, nor will the miners of coal and makers of coke receive a just return for these products.

Contrasting with Virginia is Alabama, where a large proportion, possibly 90 per cent., of the coke made in the State is, according to Mr. Parker, consumed in furnaces which are owned by the interests owning and operating the coal mines and the coke ovens, and the lack in West Virginia of industries using West Virginia coke is one of the contributions to a certain degree of

lagging in the iron industry generally in the South.

In the following table are compared iron-ore mining, coke-making and pig-iron production in 1900 and 1912:

Iron Ore Mined, Long Tons.			
	1900.	1912.	
Alabama.....	2,759,247	4,567,603	
Georgia.....	336,186	131,637	
Kentucky.....	52,320	27,373	
Maryland.....	26,223	3,200	
Missouri.....	41,396	43,480	
North Carolina.....	*	68,322	
Tennessee.....	594,171	416,885	
Texas.....	16,881	3,000	
Virginia.....	921,821	446,305	
West Virginia.....	†	5,031	
Total.....	4,748,815	5,711,866	
United States.....	27,553,161	55,150,147	
*Included with Georgia. †Included with Virginia.			

Coke Made, Short Tons.			
	1900.	1912.	
Alabama.....	2,110,837	2,975,469	
Georgia.....	73,928	43,158	
Kentucky.....	95,532	191,555	
Maryland.....	*	*260,000	
Missouri.....	2,087	*	
Oklahoma.....	38,141	*	
Tennessee.....	475,432	370,076	
Virginia.....	685,156	967,947	
West Virginia.....	2,358,493	2,465,986	
Total.....	5,839,612	7,374,211	
United States.....	29,533,348	43,983,599	
*Estimated.			

Pig-Iron Produced, Long Tons.			
	1900.	1912.	
Alabama.....	1,184,337	1,862,909	
Georgia.....	67,033	35,000	
Kentucky.....	71,565	68,760	
Maryland.....	290,073	219,546	
Missouri.....	*	*	
North Carolina.....	*	*	
Tennessee.....	362,190	338,238	
Texas.....	10,150	*	
Virginia.....	490,617	256,167	
West Virginia.....	166,758	274,300	
Total.....	2,642,720	3,054,980	
United States.....	13,789,242	29,727,137	
*Included with Georgia.			

These figures show that, while iron ore mined in the South increased in the twelve-year period from 4,748,815 tons to 5,711,866 tons, or by 963,051 tons, equal to 20.4 per cent., the increase in the rest of the country was from 22,804,366 tons to 49,438,281 tons, or by 26,633,915 tons, equal to 116.7 per cent.; that while coke made in the South increased from 5,839,612 tons to 7,374,211 tons, or by 1,534,599 tons, equal to 24.6 per cent., the increase in the rest of the country was from 14,693,736 tons to 36,709,388 tons, or by 22,015,652 tons, equal to 149.8 per cent., and that while the South increased its pig iron production from 2,642,720 tons to 3,054,980 tons, or by 412,260 tons, equal to 15.6 per cent., the rest of the country increased its production from 11,146,522 tons to 26,672,157 tons, or by 15,525,635 tons, equal to 139.3 per cent.

It must be remembered that in pig-iron production both in the South and in the rest of the country a constantly-increasing quantity of iron ore from abroad is being used, and that probably a third of the coke made in the South goes to other parts of the country for the iron industry. Nevertheless, with its wonderful resources in coal and iron ore and fluxing materials, the South is not living up to its opportunities in iron manufacturing, and will probably not be realizing those opportunities to the full until it is using more and more of its pig iron in diversified iron and steel industries.

#### ANOTHER ESTIMATE OF CAR SHORTAGE.

"Forewarned is forearmed," and with full information about the situation before them the railroads and shippers should co-operate in every way to lessen the evils of the car shortage predicted for this season of the year. Last week the MANUFACTURERS RECORD edi-

torially reviewed the forecast of the expected car shortage which was published by the Clinchfield Fuel Co., and now it appears that the Railway Business Association has just issued a bulletin asking for that co-operation which is essential to minimizing the dangers that threaten car service this autumn. Its prediction is very much along the same lines as that of Mr. Dailey, who prepared the Clinchfield pamphlet, in so far as the extent of the expected net shortage, which it places at very nearly 92,000 cars, or 5000 cars more shortage than existed in 1907. It is further claimed that the railroads must be allowed to increase their freight rates in order to obtain money needed to buy adequate amounts of cars and locomotives, and it is pointed out that in 1911 and 1912 the net corporate income of American railroads was, respectively, 20 per cent. and 15 per cent. less than it was in 1910. Of course, it is too late this year to buy equipment which would be available in relieving the impending car shortage, but there is ample time to place car contracts for next year's deliveries which would help the situation a twelvemonth hence to a considerable degree.

#### STEEL CARS FOR PASSENGER SERVICE.

To hope or to expect to prevent wholly loss of life in train wrecks by summarily requiring through legislation that all railroad companies in this country shall use none but steel cars for passengers is as unwise a proposition as would be an international statute requiring that all steamships companies shall use only ships having water-tight compartments. Such law as is proposed at Washington overlooks the fundamental fact that safety lies first in management and operation. Were it otherwise, no life would ever have been lost in the wreck of a steel car train, nor would the Titanic, which was provided with many water-tight compartments, now lie at the bottom of the sea with her memory ever associated with what has thus far been the most awful tragedy of the deep.

Any thoughtful man will not suppose that had the Bar Harbor express on the New Haven road been composed of all steel cars there would not have been a frightful catastrophe when a hundred-ton locomotive, pushed on by the momentum of a heavy train behind it, was driven at 50 miles an hour into the rear of the standing train ahead. Neither will he think that, if the Titanic had been built with a double hull throughout, she could have butted an iceberg without paying a heavy toll in human lives for such recklessness. All the mechanical safeguards in the world are not worth so much as caution and common-sense duly exercised.

The railroads are providing themselves with steel passenger cars, and have been doing so for several years. It is to their interest to do so, and they recognized this fact before anyone else did. They have also during the last twenty-five years or so provided equipment in both freight and passenger service with air brakes and automatic couplers, until at present less than one per cent. of the entire number of cars and locomotives in the United States are without air brakes and less than one-fifth of one per cent. are without automatic couplers. It is clearly indicated that in due time and in like manner the number of steel passenger cars in service will have so increased that the percentage of wooden cars remain-

ing in use will be almost nil. Already more than 7200 of the 50,000 passenger train cars in this country and Canada are of all steel construction and over 3000 others have steel underframes.

To show what the railroads are doing to equip themselves with steel passenger cars, some figures of the *Wall Street Journal*, gathered from 247 companies operating nearly 230,000 miles of lines in this country and others operating about 25,000 miles in Canada, by a special committee on the relations of railway operation to legislation, are here presented, covering steel and steel underframe passenger train cars in service during the period of five years ended January 1 last, thus:

	Steel.	Steel underframe.
January 1, 1909.....	629	673
January 1, 1910.....	1117	1098
January 1, 1911.....	3133	1636
January 1, 1912.....	5347	2399
January 1, 1913.....	7371	3296
Increase 1913 over 1909.....	6642	2623
Increase 1913 over 1909.....	1055%	389%

Furthermore, between January 1 and July 1 of this year the railroads have ordered 1140 passenger train cars, 1064 of which, or more than 93 per cent. of the total, will be of all steel construction, while the rest will have steel underframes.

It is also estimated that to replace wooden cars in passenger service by all steel cars would cost approximately as follows:

	Number.	Av. Cost.	Amount.
Postal.....	680	\$11,000	\$7,480,000
Mail and baggage.....	2,724	10,000	27,240,000
Mail, baggage and passenger.....	679	10,000	6,790,000
Baggage and passenger.....	3,757	10,000	37,570,000
Baggage or express.....	7,431	8,500	63,155,500
Passenger.....	23,692	13,800	326,257,900
Parlor, sleeping, dining.....	6,864	22,000	151,008,000
Business.....	774	15,000	11,610,000
Motor.....	325	20,000	6,500,000
Total.....	49,626		\$614,629,100
Annual int. charges at 5%.....			30,730,990

It is not denied by the railroads that steel cars are safer to ride in than are wooden cars. Neither do they deny that air brakes are safer than hand brakes and automatic couplers safer than the old link and pin sort. But they do deny that entire safety would be assured to passengers (as some folk seem to imagine) by the mere adoption of steel cars without regard for management and operation.

#### REDUCING SUGAR PRODUCTION COST.

It does not seem to be denied, even by advocates of the new sugar tariff, that the change will affect disastrously many sugar planters in Louisiana. Certainly there is widespread apprehension in Louisiana on that score. Hence, much interest will be manifested in the practical application of an invention which was explained at a recent meeting at New Orleans of the Louisiana Engineers, Chemists and Sugar Makers' Association, of an evaporating machine which it is claimed will reduce to a minimum the cost of fuel in the industry in making possible the full utilization of bagasse, the waste product of the cane. It is further claimed that the invention will enable the planters to compete successfully with foreign growers, even if the duty on sugar be ultimately abolished. While it may be too soon to accept such a claim without qualification, and while it may be better to wait for final judgment upon demonstration of the invention upon a wide commercial scale, the announcement contains the germ of a hope that many Louisiana sugar growers may be saved from the untoward fate that otherwise threatens them in the new tariff.



# AN INCOME TAX FOR THE PROMOTION OF LITIGATION.

Had the framers of the income-tax section of the tariff bill deliberately tried to devise a measure to assure permanent incomes to a horde of graduates of law schools, they could not have hit upon a measure better suited to their purpose than that which passed from the House of Representatives to the Senate more than four months ago. Of course, it is just as impossible to conceive that the framers had any such purpose as that the amendment to the income-tax section lifting the appointments under it from the ban of the civil service act was inspired by the thirst for patronage in a barren and dry land where little water in the shape of political appointments is. But the absence of any definite purpose of the kind does not diminish in the slightest degree the fact that an accurate, descriptive title of the section would have been "An act for the promotion of litigation."

Nor have the modifications essayed in the Senate materially altered the character of the measure in this respect. Only a careful, detailed comparison of the section as it passed the House and its amended form as it has been returned by the Senate will enable one to know exactly what changes have been made in it. That knowledge, however, will hardly suffice, it is believed, to extricate the framers of the measure from the fog of inability to present a clear and lucid exposition of the practical workings of it and, much less, to guide the unfortunates who are expected to be taxed under it, unfortunates, not because of opposition to the principle of the income tax as a source of revenue, but because of the crudeness, the indefiniteness, the loose-jointedness of the measure compelling them to seek the services of some one trained in the law to save them from violating the new law, and thus entailing an expense likely in many cases to be greater than the actual tax imposed.

The Senate sought in some degree to correct the glaring evils of the income-tax provisions; it sought to bring them within the limits of constitutionality and into harmony with the spirit of correct law and accord with the meaning of words in conventional use of the English language, though such a task was hopeless except through elimination by amendment of the whole section, and it sought to rid it of its manifest physical impossibilities.

But the original draft was such an accumulation of confusion of thought, of manifestations of amateurity in approaching constructively fundamental economic and governmental questions and of apparent lack of acquaintance with ordinary business processes that only a superhuman intellect could have suggested many changes that would not have aggravated the situation. That intellect would have been obliged to combat at every turn in the caucus-clogged progress of the measure through the House of Representatives the intransigent attitude of its promoters harking back to the figment of an indefinite "mandate of the people" and finding sustenance in the determination to take advantage to the limit of the possession of temporary power.

That state of mind in the House is pretty sure to object to the attempts that the Senate has made to better the bewildered legislation and, consequently, to send the measure to conference. If that should happen, it will be well for the country to keep a close and unsleep-

ing watch upon the conference. In the past two years there has developed an inclination on the part of a certain element in the Congress to turn the conference into a legislative agency never contemplated under constitutional government, and to embody in final form of law matters that have not been discussed in either branch of the Congress. It is, indeed, a matter of record that in the last Congress there was embodied by the conference in a revolutionary law an essentially new proposition which was not even brought to the attention of the House of Representatives in a statement by the House conferees presented in lieu of the reading of the full report. The income-tax measure, as it stands today, is too revolutionary and too far-reaching in its influence for evil to permit the possibility of any like game being attempted in the closing stages of its enactment. Too many of its advocates in the Congress have shown their temper as to it to justify the American people in indulging in the optimism that items that have been defeated in open sessions will not be considered in conference, even if entirely fresh matter be not brought into it.

Meanwhile, litigant lawyers are doubtless preparing to reap the rich harvest that has been provided for them in the tariff income-tax measure as a whole. It may happen that some court unhampered by the obsession of a "mandate from the people" and swayed only by respect for the Constitution and knowledge of the principles of law shall remedy the whole thing by showing that an amendment to the Constitution permitting the levying of an income tax does not nullify every other provision of the Constitution, and does not justify legislation upon the mere ground of some exaggerated conception of a cryptic party platform. In these latter days, however, such a course is becoming a greater and greater rarity. So, men who have been qualified to receive incomes above a certain amount, either through ability to earn more than their less fortunate and less-qualified neighbors, or through investments representing the results of honest thrift, and women whose fathers or husbands have provided a comfortable living for them, might as well be hunting up some lawyer to save them from violating one of the crudest laws that has been placed upon the statute books of any country.

## BECOMING EPIDEMIC.

The report that at least three hundred miles of roads were improved in Arkansas in the two days' individual construction indicates that State highway improvement under gubernatorial auspices is becoming epidemic. Aside from the actual ends gained in betterment of traffic facilities, this personal campaign cannot fail to be practically reflected in increased provision for up-to-date highways, either in direct taxation or in bond issues.

## A POLITICAMETER.

If one's party wins in Maine's September election, a sure forecast of national elections has been made; if one's party loses, there is no significance in the result. In short, all meteorological signs fail in dry weather.

## CORRECTION.

The name attached to the communication on page 75 of our issue of August 28, from Barstow, Tex., should have read George Eames Barstow.

# Restoring River Navigation

## REQUIREMENTS FOR VITALIZING THE VAST POSSIBILITIES OF INTERIOR WATERWAYS.

[Special Correspondence Manufacturers Record.]

New Orleans, La., September 6.

What is the sure means of restoring river navigation to this country, of utilizing the waterways even as they once were, and making the great network of natural, free highways serve a really important part in the solution of transportation problems, so large a factor in any consideration of ways to reduce the high cost of living? Within the memory of men of middle age a visit to the wharves of any important river city was a thrilling experience. At Cincinnati, St. Louis, Memphis, Natchez, New Orleans, up to the 70's, long lines of steamboats would be found tied up, with such an army of singing, shouting, hustling roustabouts, stevedores and overseers, loading and unloading cargoes, day through and night long, as would leave a picture of supreme activity in the memory ever afterward. Gone entirely are those scenes today; wharves are nearly always empty, and the once thickly-dotted rivers are almost total strangers to serious-minded water craft. The ship-news reporter used to be a busy and important personage on the newspapers of the larger river towns. Now he is a reminiscence, or at best a man whose daily routine includes the river as only a part of the assignments to be covered.

Can the rivers come back? Has the glory of the old days forever departed? In spite of rather discouraging attempts to restore packet lines and revive inland navigation, it would seem that a careful study of what Europe is doing with her rivers and inland waterways will show that not only can all that was once done here be done again, but that an era of infinitely greater utilization of the country's rivers may be inaugurated with ease.

A most inspiring illustration is furnished by the case of Rotterdam in Holland. Here it was necessary to dig a new waterway to the North Sea to admit ocean-going vessels of the largest class, and also to dredge out the harbor. The River Maas was also dredged to allow river craft to penetrate to the Rhine and other rivers and waterways. Also, and of paramount importance, unloading devices—traveling cranes on short and lighter barges—were installed, so that a minimum of time and expense is involved in the loading and unloading of cargoes. The same scientific development of boats for inland waterway navigation was effected, and all the various problems of transportation and handling commerce so thoroughly worked out by the Hollanders engaged in the trade that within a few years Rotterdam has come from a relatively inferior port to one of the most important in Europe. Last year it surpassed Antwerp in tonnage and number of vessels entered. This year it is gaining on Hamburg, contending with that city for the first place among the harbors of the European continent. During 1912 about 11,000 vessels entered the harbor of Rotterdam, with a total tonnage of over 13,000,000 tons. Up to the thirty-second week of this year 6386 vessels had entered Rotterdam, with a tonnage of 7,874,653. This was a gain of 202 vessels and 642,811 tons over the corresponding period of last year. Striking as are these figures as to maritime commerce, the most amazing feature of the situation is the volume of commerce on the inland rivers and waterways tributary to Rotterdam. A map recently issued by the International Navigation Congress shows Rot-

terdam so far surpassing every other port in Western Europe in inland water traffic as to put it practically in a class by itself. Holland is not an industrial nation, so where do all these things come from and go to? Strange as it may seem, it is practically all tonnage handled for Germany. Why, then, is this done in preference to shipping it to its own harbors, like Bremen and Hamburg, and then by rail to destination? The explanation given is that it is not only on account of the magnificent River Rhine, but practically alone due to the fact that Hollanders have perfectly understood inland navigation and have mastered its various problems.

I asked John H. Bernhard what could be done to bring about the development of inland waterway navigation in the United States along the lines of such development in Europe, and what would be the effect on transportation rates by the inauguration of such perfected systems. Mr. Bernhard is thoroughly familiar with the European system, having had practical experience there, also his father before him, being now at the head of very extensive shipping interests in Holland. John H. Bernhard is vice-president and general manager of the Alabama & New Orleans Transportation Co., which has invested several millions dollars in the business here. A new type of self-propelled steel barge has been introduced into Southern water by Mr. Bernhard. Sixteen of these barges are being built at the company's own shipyard at Violet, at the mouth of the Lake Borgne Canal, a few miles below New Orleans. They are of 1000 tons capacity and cost \$30,000 each. Four are completed, and others will be turned out at the rate of one a month or faster. They are put in commission as rapidly as possible, and while also engaging in general trade, will primarily be devoted to bringing coal from the Warrior coal basin of Alabama, above Tuscaloosa, to New Orleans and other ports, taking back general cargoes on their return trips. Some preliminary trips have been made by the barges, notably between New Orleans and Pensacola, and the boats come up to every expectation as to speed, cheapness of operation and seaworthiness, having passed through a 50-mile-an-hour gale in the Gulf en route without a sign of distress. With his knowledge and experience, Mr. Bernhard is regarded as likely to work a revolution in inland waterway navigation in the South, and his views on the subject are worth while.

After referring to the great strides which the Hollanders have made in the navigation of their rivers, and particularly mentioning the case of Rotterdam and the Rhine, Mr. Bernhard said:

"You have here a river—the Mississippi—much larger, more regular in its dimensions, and yet it is practically idle, which proves my contention that it is not so much the river that has made other lands successful, but the way in which the problem of inland navigation has been solved. For inland navigation three points are vital: In the first place, means of conveying the material over the inland water route; secondly, means of cross-loading from ship to inland craft; thirdly, terminal facilities, and by terminal facilities is meant not only wharves, but everything that goes with them, just as by a home is not meant simply the house, but the furniture also. Just so are mechanical loading and unloading devices neces-

sary to go with the wharf and make satisfactory terminal facilities.

"These three points have now been so successfully mastered in Holland that we need" to protect the railways from the transportation companies, instead of the opposite way as here in the United States.

"Take New Orleans, for instance, which is practically, if not in fact, the most modern and best equipped harbor in the South. The old dock board deserves credit for doing a great pioneering work in a very conscientious manner, and their successors, but recently appointed, are said to be altogether desirous of making improvements and adjustments to meet modern conditions as fast as possible. Yet, as the harbor now stands, and until many changes have been made and modern loading and unloading devices have been installed, it is almost impossible to use it to any material advantage of the community or those entitled to the benefit of the Mississippi River and its great system of inland water routes in Louisiana.

"When Colonel Goethals investigated in Europe the most modern facilities of transporting coal and fueling vessels, he reached the conclusion that the fuel lighters used in Rotterdam were the most economical and most expeditious.

"Our company has brought here one of the three necessities for making inland navigation in the South successful. We are also about to fulfill the need of the second of these three essentials, viz., the means of quickly transporting cargoes from the inland craft to the ocean-going vessel, as we laid the keel on August 30 of a lighter barge that will even surpass in efficiency those used in Holland. This lighter barge will carry in its hold a tonnage of 1000 tons of coal. It will be propelled by three propellers, moving, when loaded, at a speed of nine miles per hour, enabling it to give towing services where necessary. The coal in the bunkers of this lighter barge is permitted to drop on a continuous conveyor raised to a height of 60 feet, so that it can load vessels to a height of bunkers of over 43 feet above the water level, and vessels with a beam of over 90 feet, loading the vessel at a rate of 500 tons of coal per hour, surpassing the limits of the Dutch fueling vessels by 20 per cent. in speed (as these are only equal to loading at the rate of 400 tons per hour). All the coal leaving this lighter barge will pass over an automatic scale, in this way guaranteeing an accuracy of weight to the ocean-going vessel of 99 per cent. It is expected to have this lighter barge in commission in the latter part of December. With it we can meet a ship at the jetties and load it there or en route to port, and we can load a vessel while it is leaving port. We will have vessels coming to New Orleans solely for coaling, instead of going to Atlantic ports for that sole purpose.

"Besides its numerous traveling cranes, covering its entire short front, her lighter barges, etc., Rotterdam has facilities for other cargoes, such as grain elevators, and while Antwerp used to be a far larger port for the import of grain than Rotterdam was, the fact that Rotterdam installed, regardless of cost, a great number of most modern and up-to-date grain elevators and moved the grain in bulk has given Rotterdam the first place. At present Rotterdam has 24 floating grain elevators to Antwerp's two, with the result that the latter city does not handle one-tenth of the grain import that Rotterdam does, where eight years ago it was just the opposite.

"This proves the truth of my statement that for the success of inland navigation the proper floating mechanical equipment is necessary to reload from barge to ship and from ship to barge. This is illus-

trated by the fact that, for example, a vessel of a capacity of over 10,000 tons can be unloaded by lighter barges in 12 hours. I believe the record is 10.

"Next to these three conditions needed, the local conditions in Louisiana demand a fourth, which is a few additional links to connect the scant lengths of inland water routes to form one compact mass. To illustrate this: It is possible for a launch from Mandeville or Covington, La., to go through various rivers and through Lake Ponchartrain up to Baton Rouge, yet if any good-sized barge wants to go from either of these places to Baton Rouge it would have to go out to Lake Ponchartrain, through the Rigolets to Lake Borgne, through Lake Borgne Canal and then up the Mississippi River, practically quadrupling the distance.

"Also, see your splendid system of bayous in Western Louisiana and their poor connection with the Mississippi River.

"The first of the three essentials we have furnished with our barges, which now can move a thousand tons at the rate of 200 miles per 24 hours at one-half a mill per ton mile. The lowest freight rate on bulk material in the United States is surpassed by means of these barges. Think of moving a thousand tons at express rate for one-half a mill per ton mile—moving a ton over 200 miles for 10 cents! We have practically lowered this with our barges, and have also reduced the cost of loading and unloading on these barges to a minimum. For example, we moved 3000 barrels of rosin from Bagdad, Fla., which is just above Pensacola, to New Orleans in 29 hours at a charge of less than rail rate, loading the barge in six hours and unloading it in seven hours. Had these barrels been shipped by express we would still have beaten the time at least 50 per cent., yet, through the utter lack of the third essential feature of successful inland navigation, there are only rare instances where we can offer this great reduction in rate. I mean the utter lack of terminal facilities, such as mechanical loading and unloading devices.

"For instance, while 10 cents a ton is a fair charge, under the system here the shore charges are so great through lack of proper facilities that we had to bring these charges to \$1. On freight moved from here to Mobile the cost by rail might be \$1.23. We will charge \$1, and out of this dollar we will probably get 10 cents. The 90 cents will go for various shore charges incurred through the poor loading and unloading facilities. Charges like wharfage, roustabouts, drayage, harbor charges, etc., will bring this up to a figure of 90 cents. The other day we moved tomatoes to Biloxi, and exactly 61 per cent. of our gross receipts had to be paid for charges.

"Another example: We offered to move some creosote blocks to Natchez. Our rates were a great reduction over the railroad rates, but the fact that Natchez had no proper unloading facilities to bring freight from the river up to the Bluff made it impractical for us to handle the shipment.

"Again, we can move cotton from Montgomery and Selma to New Orleans cheaper than it would be moved by rail to Pensacola, but we cannot do so because New Orleans, not having the proper mechanical unloading facilities, forces us to spend two or three days in unloading our barges, bringing the cost of transportation far beyond what it should be.

"Rice had to be moved on the Mississippi River for a distance of 80 miles. The rail rate was \$1.75. We quoted \$1. The mill which would receive this rice used to lie on a bayou which we could

have entered from the river and subsequently cheaply unload from the barge to the mill. A certain railroad years ago prevailed upon the mill to close the bayou on the ground that inland navigation would never amount to anything. Now this mill cannot take advantage of our cheap rate, a reduction of 75 per cent., because it has at present no facilities for unloading the barge, and it would take four days to unload it at a cost of about 75 cents per ton, perhaps \$1—at any rate, sufficient to erase the profit they would make by our reduction in rate. In other words, this is again an instance where the mill is robbed of cheaper means of transportation through lack of proper facilities.

"The average village in the heart of Holland has better wharves and terminal facilities than the average harbor in the South. Every little town there provides terminal facilities even before it establishes good roads. Inland navigation in the United States, especially in Louisiana, will some time be a great factor, but it will not be so until the proper terminal facilities are provided and the scattered links of water routes are united, and with these improvements no water transportation company need to fear the fight of the railroads nor need the protection of the Interstate Commerce Commission. It has not been so much the railroads as the public which have laid obstacles in the way of inland navigation.

"The Alabama & New Orleans Transportation Co. so fully realized the impossibility of successfully operating an inland navigation company in the United States on account of the lack of proper terminal facilities that it never would have embarked in such an enterprise if it had not been for its intention to build its own terminals, which terminals, on account of building them itself, can be made as modern and speedy as can possibly be devised. In this connection it is building a loading terminal in Tuscaloosa at a cost of \$110,000, which will enable us to load a thousand-ton barge in two hours—loading it as desired with lump, run-of-mine, nut or slack coal. We have built in Violet, La., an unloading terminal which will enable us to unload a barge of a thousand tons within three hours, unloading it from barge to storage pile, or from barge to elevator barge, or from barge to railroad cars alongside the barge, or from storage pile to railroad cars, or from storage pile to barge.

"This is an example of what modern loading terminals can do."

ALBERT PHENIX.

### Factories Wanted

Jewett, Tex., September 5.

Editor *Manufacturers Record*:

Five or six shafts have been sunk for coal in this section in the last few years. Two railroads have recently been built through this section, and another has been surveyed and will be built soon. Fuel and water are abundant, and factories of all kinds are needed. Jewett is amply able to support and needs a cotton mill, a cotton-oil mill, an ice factory, an electric-light plant and woodenware factories of all kinds. This section has plenty of the finest kind of kaolin, joint clay, brick clay and sand. Manufacturing industries that use these natural resources are badly needed.

ED. L. EVANS.

"Aggressive Anderson," issued quarterly by the Publicity Committee of the Chamber of Commerce of Anderson, S. C., in its September number treats of Anderson from three viewpoints—material, civic and achieving.

### Southern Building in August.

The following figures from representative Southern and Southwestern cities present a brief summary of building operations in these sections during August. A total of 99 permits was issued in Richmond during the month, including alterations and repairs, which represent a cost of construction of \$304,343. As compared with August, 1912, these figures show a decrease of \$100,592. The total value of work authorized from January 1 to August 31, inclusive, is estimated at \$2,914,662. Building activity has been notable in Suffolk during the year and a number of important structures have been erected. Among these are the First Baptist Church, costing \$40,000, and the post-office, \$85,000. Permits were issued in Winston-Salem during August to the value of \$114,658. In Raleigh there has been a general increase in the value of building operations, this activity being confined to a particular class of structures. For the fiscal year ended August 31 it is estimated that the cost of construction will reach \$2,500,000, including municipal buildings. Permits were issued in Greenville, S. C., during August for buildings to cost \$41,407. A total of 97 permits was issued in Birmingham, representing a cost of \$333,385. As compared with August, 1912, these figures show an increase of \$7624. In Augusta a total of 155 permits was issued, representing a cost of construction of \$65,081. Permits were issued in Jacksonville to the number of 53, involving an estimated expenditure of \$95,625. The cost of construction for which permits were issued in Miami during the month was estimated at \$27,100. From February to August, inclusive, the value of operations is estimated at \$257,903. Permits were issued in St. Petersburg to the value of about \$13,000 for the month. In Memphis a total of 247 permits was issued, representing a cost of construction of \$321,116. As compared with August, 1912, these figures show a decrease of 115 in the number of permits and \$780,479 in the cost of construction. Permits were issued in Gulfport to a value of \$110,909 during the month, and in Shreveport the cost of construction is estimated at \$101,435, including \$64,550 for residences. For the fiscal year ended August 31 permits were issued in New Orleans for construction to cost \$3,712,691. A total of 786 permits was issued in St. Louis during August, representing a cost of construction of \$1,082,947. In Dallas the cost of construction for which permits were issued is estimated at \$405,300, and in Waco at \$260,530. The value of operations in San Antonio is estimated at \$225,385. A total of 278 permits was issued in Houston, representing a cost of construction of \$176,145. The value of operations in other Texas cities was estimated as follows: El Paso, \$90,865; Fort Worth, \$95,915; Galveston, \$65,137; Beaumont, \$29,640; Austin, \$14,160. Permits were issued in Little Rock to the number of 54, representing a cost of construction of \$85,655. The cost of construction for which permits were issued in Huntington, W. Va., was estimated at \$139,740. Permits were issued in the District of Columbia for new buildings to cost \$498,985, and alterations and repairs to cost \$128,487. In Baltimore permits were issued for new buildings to cost \$745,155, alterations \$75,000 and additions \$160,000. The cost of construction for which permits have been issued from January 1 to August 31, inclusive, is estimated at \$6,446,675 for new buildings, \$604,500 for alterations and \$1,041,000 for additions.



# Cotton Crop of the United States for 1912-1913.

By COL. HENRY G. HESTER, Secretary of the New Orleans Cotton Exchange.\*

The cotton crop of the United States for the year ending with the close of August, 1913, amounted to 14,167,115 bales, showing a decrease under that of 1911-12 of 1,971,311 bales, an increase over that of 1910-11 of 2,047,020 bales, and an increase over that of 1909-10 of 3,557,447 bales.

Texas again shows an increase of over 12 per cent., but this has been more than offset by a decrease of 11.8 per cent. in the group of "Other Gulf States" and a decrease of 26.3 per cent. in the Atlantic States.

The figures are (in round numbers): Texas over last year, 535,000; "Other Gulf States" (embracing Louisiana, Mississippi, Arkansas, Tennessee, Oklahoma, Missouri, Arizona, California, Kansas and New Mexico) under last year, 496,000; the group of Atlantic States (including Alabama, North Carolina, South Carolina, Georgia, Florida, Kentucky and Virginia) under last year, 2,010,000 bales.

These constitute the face of the figures; but, considering the increase in weights, which averages 4 27-100 pounds per bale, the decrease is not so great by 118,000 bales in bales of last year's crop. In other words, the present crop is equal to 14,285,000 bales of last year's weights. The fact that this is the second largest crop ever grown is dwarfed by the immediate comparison with the bumper production of last year, when everything connected with cotton, excepting price, was of the "biggest," and yet no crop has sold for as much, barring that of 1910-11.

Unusually wet spring weather in Arkansas and the Atlantic States, and floods in the Mississippi River section, reducing acreage in the latter, gave the crop a poor start, from which it never fully recovered, notwithstanding improved conditions later, and every State except Texas shows more or less decrease in production. As put by one authority, the weather conditions in Texas were, as a whole, remarkably favorable. These, combined with the absence of early frost and excellent harvesting conditions, resulted in the production of the largest crop for the State ever recorded.

Practically every vestige of the crop has been used, and the mills have had to trench upon the visible and invisible supply left over from last season to the extent of 726,000 bales.

In grade the crop has been better, averaging middling to strict middling, compared with an average for last year of strict low middling to middling, though the receipts generally from January on dropped off decidedly in quality, the scarcity of desirable cotton causing much complaint. For middling the average price per pound, 12.20 cents, compares with 10.16 last year, 14.60 the year before, and 14.37 in 1909-10, the average commercial value per bale having been \$63.59, against \$51.45 last year, \$75.69 the year before, and \$73.41 in 1909-10.

## Value of Commercial Crops.

The total value of the crop compared with the previous five years is as follows:

	Bales.	Values.
1912-13.....	14,167,115	\$870,035,059
1911-12.....	16,138,426	\$10,280,764
1910-11.....	12,130,085	\$917,355,589
1909-10.....	10,609,668	\$778,994,095
1908-09.....	13,825,457	\$683,794,494

As stated in my last annual report, these values are based on actual transactions from week to week and month to month as the cotton crop was marketed, and compared with computations made by the secretaries of other exchanges at leading Southern trade centers.

The values stated for the commercial crops are for cotton only, and do not, of course, include the value of the cottonseed, which, however, constitutes an important item. For example, the value of the crop for the past year, as stated, was \$870,035,059, to which if the value of the cottonseed is added, the actual wealth-producing capacity of the Southern cotton farms would be \$998,425,059. Last year the total value, including seed, was \$937,280,764, so that for a crop embracing 1,971,311 bales less cotton and 893,000 tons less seed, the South received over \$61,000,000 more in money.

The foregoing values are different from those stated by the Census Department, which may be accounted for in part by the fact that the Government data is made up several months before the season closes, when a considerable percentage of the crop remains to be disposed of.

In figuring out an approximation of the actual growth, I find that comparatively little old cotton remains in the cotton belt at the close of the season, and of that nearly half is held in stock by Southern mills.

## The Crop by States.

The commercial crop by States in thousands of bales for the past five years was:

	1912-13.	1911-12.	1910-11.	1909-10.	1908-09.
Alabama.....	1,390	1,738	1,209	1,078	1,428
Arkansas.....	820	941	846	718	1,052
Florida.....	62	95	68	66	75
Georgia.....	1,920	2,878	1,853	1,927	2,118
Louisiana.....	390	403	273	282	485
Oklahoma.....	1,051	1,036	924	566	704
Mississippi.....	1,042	1,221	1,239	1,121	1,673
North Carolina, etc.....	974	1,194	794	676	717
South Carolina.....	1,281	1,732	1,231	1,184	1,298
Tennessee, etc.....	375	573	424	516	426
Texas.....	4,862	4,327	3,259	2,676	3,819
Total crop, bales.....	14,167	16,138	12,130	10,610	13,825

## American Mills.

American mills have had another year of remarkable activity. Both North and South the number of bales used has been greater than ever before, and, aside from mention in some instances of the necessity for more labor, there has been a singular absence of complaints of any kind. In the South, which has been the most active, mill replies, as a rule, have contained the stereotyped statement of "full time."

An increase of 545,000 spindles is shown in the Southern mills in operation and seven mills in course of construction, with liberal additions making to old concerns,

embrace a total of exceeding 300,000 additional spindles, most of which may come into play in the near future.

Last season the mills as a whole did not reach their maximum consumption until the last half of the year. This year, while the aggregates have varied, there has been no let-up from month to month, and early indications of record consumption were sustained as the season progressed.

The consumption of American cotton by Northern and Western mills compared with last year has been as follows (000's omitted):

	This year.	Last year.
Northern and Western mill stocks beginning year.....	450	*300
Takings.....	2,488	2,631
Supply.....	2,938	2,931
Consumption.....	2,917	2,481
Stocks close year.....	321	*450

\*Revised.

I have revised last year's Northern and Western mill stocks, as I am convinced, in view of the large number of mattress and batting factories started all over the country to use the increased linter production, that I had them too small. The change, however, is only clerical and does not affect the figures of consumption.

The foregoing shows an increase of domestic consumption outside of the cotton belt of 136,000, to which, if we add the gain of 226,000 in the South, we have the handsome increase for the year of 362,000 bales. This refers to American cotton only, while the mills have used in addition the equivalent, in this year's American weights, of 218,000 bales of foreign production, the aggregates of all kinds having been as follows (000's omitted):

	This year.	Last year.
Consumption, North and South—American.....	5,587	5,225
Consumption, North and South—foreign.....	218	208
Total consumed, North and South, all kinds.....	5,805	5,433
Increase over last year, 372,000.		

The following table shows the takings of American cotton for a number of years past:

## Cotton Takings by American Mills.\*

Year ending August 31.	Northern mills. Bales.	Southern mills. Bales.	Total Bales.	Crop, Bales.
1880.....	1,799,258	546,894	2,346,152	7,311,392
1891.....	2,422,362	604,661	3,027,023	8,852,057
1892.....	2,191,766	686,080	2,877,846	9,035,379
1893.....	1,687,286	743,848	2,431,134	6,700,265
1894.....	1,601,173	718,515	2,319,688	7,549,817
1895.....	2,083,839	862,838	2,946,677	9,901,251
1896.....	1,600,271	594,701	2,194,972	7,157,246
1897.....	1,804,680	1,042,671	2,847,351	8,767,964
1898.....	2,211,740	1,231,841	3,443,581	11,199,994
1899.....	2,190,095	1,399,399	3,589,494	11,274,840
1900.....	2,068,300	1,371,112	3,439,412	9,436,416
1901.....	2,067,570	1,531,931	3,599,501	10,383,422
1902.....	2,024,774	1,337,971	3,362,745	10,680,680
1903.....	1,967,635	2,090,729	3,968,364	10,727,559
1904.....	2,026,967	1,919,352	3,946,319	10,911,274
1905.....	2,282,145	2,163,505	4,445,650	12,565,885
1906.....	2,749,178	2,574,225	5,323,403	11,345,988
1907.....	2,526,390	2,434,108	4,960,498	13,510,982
1908.....	1,896,661	2,193,277	4,089,938	11,571,966
1909.....	2,680,118	2,569,873	5,249,991	13,825,457
1910.....	1,893,904	2,741,303	4,635,207	10,610,668
1911.....	1,893,576	2,363,616	4,257,192	12,120,695
1912.....	2,651,432	2,744,067	5,395,499	16,138,426
1913.....	2,488,577	2,969,559	5,458,136	14,167,115

\*American cotton.

## Net Receipts of Cotton at United States Ports.

(As per form in use by the Cotton Exchanges.)

	1912-13.	1911-12.
New Orleans.....	1,436,559	1,062,698
Galveston.....	4,035,114	3,727,828
Port Arthur and Texas City.....	895,313	796,355
Mobile.....	230,699	284,239
Pensacola.....	125,633	216,114
Savannah.....	1,306,564	2,386,202
Charleston.....	310,293	416,013
Wilmington.....	342,953	548,122
Norfolk.....	602,523	821,321
Baltimore.....	84,661	125,836
New York.....	15,326	6,961
Boston.....	46,222	63,112
Philadelphia.....	8,326	3,972
Jacksonville and Fernandina.....	15,881	50,322
Newport News, etc.....	119,570	40,896
Brunswick.....	240,500	425,462
Laredo, Eagle Pass, etc.....	49,819	783
San Francisco, etc.*.....	257,226	194,995
Seattle.....	36,456	152,127
Tacoma.....	70,559	62,092
Minor ports.....	48,070	106,874
Total port receipts.....	10,189,671	12,181,621

Nor.—Light-weight round bales have in all cases been included in receipts as half-bales.

\*Total receipts at San Francisco, 267,250, including 10,039 received from Galveston and counted in net at the latter.

## Exports.

	Great Britain.	France.	Continent and Channel.	Total.	Total.
	Bales.	Bales.	*Bales.	Bales.	Bales.
New Orleans.....	743,890	151,394	454,503	1,350,327	1,600,625
Galveston.....	1,331,274	405,915	1,479,415	3,216,704	3,108,889
Mobile.....	60,464	25,562	57,122	143,148	292,309
Pensacola.....	24,245	34,791	65,963	125,099	216,424
Savannah.....	134,786	65,369	628,132	828,187	1,796,572
Charleston.....	73,267	5,000	110,111	228,478	259,574
Wilmington.....	109,543	59,973	155,665	325,181	504,181
Norfolk.....	16,730	500	55,462	72,692	21,267
Baltimore.....	9,632	3,827	69,560	83,019	121,271
New York.....	330,103	55,241	230,074	615,418	654,563
Boston.....	144,701	.....	76,208	150,909	187,362
Philadelphia.....	55,953	.....	8,040	63,993	90,378
Newport News.....	291	.....	.....	291	.....
Brunswick.....	111,491	.....	103,328	214,819	372,824
San Francisco.....	.....	.....	262,867	262,867	211,778
Seattle.....	.....	.....	84,536	84,536	150,947
Tacoma.....	.....	.....	69,743	69,743	139,843
El Paso, etc.....	449,371	189,580	180,757	820,308	866,628
Totals.....	3,596,641	995,592	4,018,456	8,610,719	10,506,465
Last year.....	4,243,639	1,198,174	5,064,652	10,506,465	.....
Year before.....	3,347,399	933,814	3,821,508	7,602,721	.....

\*Included under Continent are exports to Mexico, Japan, China and East India, which are to Mexico this year 9479 from New Orleans, 500 from Galveston, 10,034 from Texas City, 500 from New York, 3377 from Laredo, El Paso, Eagle Pass, etc., a total of 23,870, against 16,527 last year and 6484 the year before last; to Japan and China, 393,345 from San Francisco, Portland and other ports, against 514,543 last year, and 153,208 the year before, and to East India 3355 from Savannah and New York, against 82,085.

†Exclusive of 6320 shipped to Canada included in total of Canadian takings.

\*From his annual report.

## COTTON CONSUMPTION IN THE SOUTH.

Census of Southern Mills from Returns by Mail and Telegraph for Year Ending Close of August, 1913.

The story of the progress of cotton manufacturing in the South during the year is easily told and in a few words.

The rule has been "full time" and the result an increase over last year's record total of 225,492 bales, the aggregate consumption falling short of the three-million-mark by only 30,000 bales.

Last year some of the mills did not get under full headway until some time after the commencement of the season; this year, though there were some variations from month to month, Southern spindles generally were busy from September to August, inclusive.

Again it has been shown that the trend of the cotton spindle is southward. In the North the bales consumed (American cotton only) were 2,617,000; in the South, 2,970,000, an excess in the South of 350,000, a distinct gain in the comparisons. The records show that in the mills in operation there has been an increase of 545,097 spindles, and there are 302,660 spindles in course of erection and being added to old mills.

The total number of bales consumed for the year is 2,969,559, against 2,744,067 last year and 2,363,616 the year before, an increase over last year of 225,492 and over the year before of 605,943.

Nearly all of the mills in the South have reported to me direct, but eight refusing out of over 800 regular cotton mills, and of these I have obtained data sufficiently close to cover all the purposes of an actual census. In fact, they used but an infinitesimal fraction of the total quantity consumed. In addition I have secured returns from every woolen mill, batting and mattress factory, and every knitting mill that has spindles and used raw cotton. In fact, I have knocked at the doors of every institution of any kind in the South that uses raw cotton, and have invariably met with kind and prompt responses.

## Roster of Mills.

Total number last year.....	842
Crossed out and merged into other concerns.....	8
New and uncompleted added to list.....	7
Total number cotton mills in the South.....	841

The record of spindles in the South shows:

	This year.	Last year.
Total in operation.....	12,290,251	11,745,554
Idle.....	228,422	258,320
New, not completed.....	302,660	316,482
Grand total.....	12,819,333	12,318,356

showing an increase of spindles, active, idle and not complete, over last year of 500,977 and a net gain of spindles at work of 546,697.

As indicated by the tables annexed, the total consumption in all the mills, old and new, for the year was 2,969,559 bales, against 2,744,067 last year and 2,363,616 for the season of 1910-1911, an increase over last year of 225,492 and an increase over the year before of 605,943.

## Southern Cotton Mills in 1912-1913.

	MILLS.				
	Total.	In operation.	Idle.	New, not completed.	
Alabama.....	69	67	1	1	
Arkansas.....	2	1	1	1	
Georgia.....	157	149	7	1	
Kentucky.....	7	6	1	1	
Louisiana.....	5	4	1	1	
Mississippi.....	20	14	6	1	
Missouri.....	2	2	1	1	
North Carolina.....	329	328	1	1	
South Carolina.....	190	186	4	1	
Tennessee.....	22	20	2	1	
Texas.....	15	13	2	1	
Oklahoma.....	1	1	1	1	
Virginia.....	12	12	1	1	
Total.....	1841	1803	38	10	
Last year.....	842	796	46	10	
Year before.....	840	767	73	10	

\*Including mills commenced this year and those under this head last year not yet completed.  
†Including one mill for foreign cotton in operation.

## LOOMS.

	LOOMS.			
	Active.	Idle.	Not complete.	Total.
Alabama.....	17,932	108	1,390	19,430
Arkansas.....	160	1	1	162
Georgia.....	41,065	723	1,091	42,879
Kentucky.....	1,475	1	1	1,477
Louisiana.....	1,019	1,302	2,312	4,633
Mississippi.....	3,363	1,355	60	4,778
Missouri.....	730	1	1	732
North Carolina.....	62,926	426	1,200	64,552
South Carolina.....	108,814	830	4,214	113,858
Tennessee.....	4,583	1	608	5,192
Texas.....	2,975	150	1	3,126
Oklahoma.....	1	1	1	3
Virginia.....	11,725	1	1	11,727
Total.....	256,756	4,894	8,373	270,023
Last year.....	249,479	5,224	6,159	260,862
Year before.....	236,886	7,227	6,550	250,663

## SPINDLES.

	SPINDLES.			
	Total.	In operation.	Idle.	New, not completed.
Alabama.....	1,047,148	997,220	4,000	45,928
Arkansas.....	13,805	6,808	1	7,000
Georgia.....	2,115,380	2,040,320	36,536	38,604
Kentucky.....	100,638	95,628	1	5,000
Louisiana.....	86,560	45,808	40,752	1
Mississippi.....	183,092	133,148	49,944	1
Missouri.....	31,480	31,480	1	1
North Carolina.....	3,756,265	3,636,047	1,600	87,392
South Carolina.....	4,640,576	4,482,956	37,460	120,160
Tennessee.....	302,324	289,544	2,394	10,576
Texas.....	125,858	113,358	12,500	1
Oklahoma.....	5,712	5,712	1	1
Virginia.....	410,612	410,612	1	1
Total.....	*12,819,333	12,288,651	1,600	302,660
Last year.....	12,318,356	11,709,354	24,200	258,320
Year before.....	11,897,414	11,181,354	10,544	267,764

\*Includes spindles being added to old mills, as well as those in new concerns.  
†Including spindles added to old mills, less spindles thrown out during year, and new, not complete mills of last year which started operations this season.  
\*Exclusive of 54,449 spindles using foreign cotton, say 16,202 in Georgia, 32,447 in North Carolina, 5890 in South Carolina.

## Consumption of Foreign Cotton in the South.

	Mills.	This year.	Last year.
Alabama.....	1	292	294
Georgia.....	2	2,294	2,042
Kentucky.....	1	5,832	4,689
North Carolina.....	11	1,152	2,153
South Carolina.....	5	82	32,447
Tennessee.....	3	9,562	9,188
Virginia.....	22	9,562	9,188

Equal in bales of American weights to 12,277 this year and 12,083 last year.

## Southern Spindles Consuming Foreign Cotton.

	In operation.
Alabama.....	16,202
Georgia.....	32,447
Kentucky.....	5,890
North Carolina.....	54,449
South Carolina.....	54,449

Total in operation, 54,449 spindles, against last year 106,363.

## Southern Cotton Spindles.

The record of spindles since 1860 is of interest:

1860.....	295,359
1870.....	328,860
1880.....	561,569
1890.....	1,819,291
1895.....	3,177,310
1900.....	6,267,163
1901.....	7,512,982
1902.....	8,248,275
1903.....	8,615,369
1904.....	9,295,949
1905.....	9,769,192
1906.....	10,598,065
1907.....	10,661,208
1908.....	11,255,787
1909.....	11,583,359
1910.....	11,897,414
1911.....	12,318,356
1912.....	12,819,333

## Southern Consumption of American Cotton Year Ending Close August.

(Actual figures reported by the mills.)

States.	*No. mills.	†Looms.	‡Spindles.	1913.	1912.
Alabama.....	67	17,932	997,220	301,561	262,459
Arkansas.....	149	160	6,808	10,373	9,274
Georgia.....	149	41,065	2,040,320	655,281	591,576
Kentucky.....	6	1,475	95,628	27,016	25,531
Louisiana.....	4	1,019	45,808	15,748	14,667
Mississippi.....	14	3,363	133,148	33,717	30,975
Missouri.....	2	730	31,480	24,110	19,689
North Carolina.....	328	62,926	3,636,047	876,202	841,841
South Carolina.....	186	108,814	4,482,956	781,786	732,997
Tennessee.....	20	4,583	289,544	82,518	76,228
Texas.....	13	2,975	113,358	61,348	46,406
Oklahoma.....	1	5,712	5,712	8,967	5,745
Virginia.....	12	11,725	410,612	91,532	83,879
Totals.....	1803	256,756	12,288,651	2,969,559	2,744,067
Less consumed and taken from Southern seaports and included in port receipts.....				92,529	71,096
Net consumption to be added to crop.....				2,877,030	2,672,971

\*Mills in operation only. For total in South see other table.

†Employed in mills in operation. For total looms and spindles in South see other table.

‡Exclusive of one mill in operation using only foreign cotton in North Carolina.

§Spindles working American cotton only; for statement foreign see elsewhere.

## Consumption of Southern Mills in Pounds.

The following shows the consumption of American cotton by Southern mills during the past two years in pounds of lint cotton and the average net weights per bale:

	Pounds (Lint).		*Average weights.	
	This year.	Last year.	This year.	Last year.
Alabama.....	145,543,776	126,256,167	482.63	481.05
Arkansas.....	5,150,250	4,554,264	496.51	491.08
Georgia.....	309,374,299	278,894,317	471.97	471.60
Kentucky.....	13,215,227	14,057,796	489.16	482.22
Louisiana.....	7,451,400	7,126,518	474.16	468.22
Mississippi.....	16,005,154	14,887,825	474.69	480.64
Missouri.....	11,769,050	9,701,044	488.14	482.71
North Carolina.....	409,568,258	391,079,508	467.44	464.55
South Carolina.....	367,200,459	340,663,657	469.69	464.75
Tennessee.....	39,866,689	37,070,437	483.13	486.25
Texas.....	30,857,976	22,887,859	503	493.21
Oklahoma.....	4,298,346	2,810,855	513.73	489.29
Virginia.....	43,657,898	40,072,466	476.97	477.74
Total.....	1,403,858,781	1,290,062,813	472.75	470.13

\*Exclusive of bagging and ties.

†Not including foreign cotton.

## United States Spinners' Takings of American Cotton.

	1912-1913.		1911-1912.	
	Total crop United States.....	14,167,115	Total crop United States.....	16,138,428
Stocks at ports beginning of year.....	282,969		288,101	
Total supply.....	14,450,074		16,347,417	
Exported during year (American).....	8,610,719		10,506,465	
Sent to Canada.....	117,152		180,794	
Total.....	8,727,871		10,687,259	
Less American cotton returned from foreign ports:				
To New York.....	303	2,006		
New Orleans.....	116	1,500		
Boston.....	50	200		
Various.....	469	6		
Burnt at ports.....	8,757,402		10,683,547	
Stock at close of year.....	234,688	8,992,068	282,969	10,971,918
Total takings for consumption, United States.....	5,457,976		5,375,439	
Of which—				
Taken by spinners in Southern States—total.....	2,969,599		2,744,067	
Taken by Northern spinners.....	2,488,377		2,631,432	

## To Develop 13,000 Horse-Power.

The Magnolia Power Co., Springfield, W. Va., proposes to build, at a total cost of \$1,000,000, a hydro-electric plant developing 13,000 horse-power for transmission to Springfield, Romney and other points in Hampshire county. Its water-power is on the south branch of the Potomac River, and its engineer in charge

is F. Ernest Brackett of Cumberland, Md. This company was previously incorporated.

More than 10,300,000 cubic yards of levee work was completed in Louisiana during the past year, with the possibility of about 4,000,000 cubic yards more being added to the work.



# Lime in Agriculture.

By CHARLES CATLETT of Staunton, Va.

I have not been able to find out who was the first man who used lime on the soil for agricultural purposes or why he did so. Undoubtedly the use is very ancient, but it has only been with the development of scientific agriculture that the "why and the wherefore" have been determined. Probably the most striking thing in connection with modern agricultural development is the widespread appreciation of the fact that the addition of lime in some form is desirable for almost all soils. Dr. Harper, director of the South Carolina experiment station says: "In every case where lime was used the increased yield in crop was more than 100 per cent."

Dr. Soule of Georgia State College says: "Most of our Georgia soils are deficient in lime. Lime may be used for the purpose of improving the mechanical condition of soil, stimulating bacteria life, correcting acidity and setting free unavailable forms of plant food."

Dr. Morgan of the Tennessee experiment station says that in field experiments extending over seven years 1800 pounds of burnt lime per acre was found to increase very profitably such crops as cowpeas, wheat, corn, and especially clover.

Dr. Hopkins of the Illinois experiment station says: "Limestone serves two very important purposes in soil improvement. One is to correct the acidity of sour soils, and the other is to supply the element calcium as plant food, an element which is much more likely to be deficient in normal soils than is the element potassium."

There seems no dissenting opinion, and the cycle is very simple:

Some soils are deficient in lime, and all tend to become so by leaching, in addition to what is carried off by the crops.

Some soils are acid; all soils tend to become so.

Some plants will not grow in an acid soil. Among those that will not thrive are the leguminous plants, such as clover, alfalfa, etc., which are enrichers of the soil, and are capable of withdrawing nitrogen from the inexhaustible reservoir which exists in the air above the soil and preserving it in a form available for plant and animal food.

The only thing which is abundant enough and cheap enough to serve this purpose is lime, and to a somewhat similar degree the magnesia which is commonly associated with lime in limestones.

It is most fortunate that the exceedingly wide distribution of lime makes it possible, at a comparatively small expense, to use lime in its various forms for this purpose, and that the supply is so abundant it cannot be controlled to the detriment of any particular section.

There are soils through the South that are simply crying for lime, and which will astonish people by their productiveness when a reasonable amount of lime is furnished.

It is probable that the principal reason why the soils which result from a decomposition of beds of limestone are usually of great fertility is that they possess, either on the surface or in the underlying material, a sufficient amount of lime to counteract to a greater or less extent the commonly acid condition. In spite of this, it is the land in the limestone belt which receives the greatest addition of lime, partly because it is easier to secure lime products in these sections and partly because experience has shown the need of additional lime even on what is commonly known as "limestone soil," and the sec-

tions which have commenced the use of lime almost invariably use more of it.

Lime is available for agricultural purposes in several forms:

The simplest is ground limestone. For the purpose of neutralizing the acidity in the soil ground limestone is entirely satisfactory, although its action is comparatively slow. It is not possible to use it in so large an amount as to be injurious, and several tons an acre are at times added to soils, when it is possible to do so economically, with the expectation that its slow action will extend over a number of years. The finer the limestone is ground the quicker the action and the wider and more uniform can the distribution be made.

It has been common for many years to use a burned limestone or "bulk lime" for the purpose, allowing it to slake in piles on the land and then distributed. The difficulty of uniform distribution and the fact that it requires a very large amount of hand work has led to the introduction in certain sections of the use of this burnt lime in ground form, which can be handled through a drill or spreader. In addition to acting as a neutralizer of the acid, the bulk or ground lime is of service in improving very greatly the texture of the soil and tending, as a rule, to make a dense clay soil more loose and more easily worked, and when added to excessively sandy, loose soil tends to improve its quality also. In addition, such material has marked causticity or chemical action, which at times is of great advantage in the decomposition of soils and other material into suitable plant food. It should not be used directly with fertilizers.

The action, therefore, of bulk lime and of its ground form is different from that of ground limestone, or, rather, they have qualities, in addition to the quality possessed by ground limestone, which, under certain circumstances, make them of special value. But both ground lime and bulk lime contains a certain amount of impurity which is inseparable from the commercial product, and, moreover, they are exceedingly difficult to handle and cannot be stored. They must be used promptly in order to get the best results.

These considerations have led to the development of another form of lime known as hydrate, which, in the more perfect form of manufacture, is produced by adding to the ground lime just enough water to cause it to break down into a fine and dry powder. The water thus added becomes chemically combined and is not recognizable as water or moisture. This material usually, and in the better plants always, is run through an air separator by which all the overburned and underburned material is separated, and the resultant product represents a material so pure and fine that it permits of very wide and uniform distribution and gives the promptest sort of action.

This hydrate, when it is properly bagged, will stand shipment over long distances and storage for a long time without sensible deterioration. Its action is similar to that of ground lime, or bulk lime, though somewhat less violent, and in a general way would seem to most perfectly meet the requirements in the way of a suitable addition to the soil where bulk lime or ground lime can be used.

It is quite true that the hydrated lime carries a certain amount of water of hydration which has no agricultural value, but this is far more than offset by the qualities which have been given to it during the treatment it has received; and, taking everything into consideration, the

average farmer who has had an opportunity to test out the matter finds that he can get more economical results by the use of lime in this form. One instance has come to me where a progressive farmer, who had already burned a kiln of lime on his land, decided that he could better afford to use hydrate at the market price than he could handle and distribute his own lime. In another case a lime manufacturer said he had tried to persuade the farmers not to use hydrate, but they insisted on having it.

The growth, therefore, of the use of hydrated lime is destined to be very rapid within the next few years, and, in addition to its suitability for agricultural purposes, it is also, when carefully prepared, most admirably adapted for all the other purposes for which lime is fit.

It can be used for building purposes, for which it is especially adapted, because it can be stored anywhere without danger, and can be used in making mortar at the place where it is most convenient.

It can be used for chemical purposes, such as water softening, tanning, etc.

It represents just a stage of the tendency noted in all other manufacturing propositions, which is to save the time of the individual and to guard against the effect of inefficient individual work by controlling at the initial point the preparation of the material so that it may be used with the least final expense and with the least danger of error and failure.

## DEVELOPED FROM A JUNGLE.

Substantial Reasons for the Notable Growth of Miami.

[Special Cor. Manufacturers Record.]

Miami, Fla., September 5.

Seventeen years ago, on July 18, 1896, a small army of energetic men, armed with axes and brush-hooks, attacked the dense tangle of trees and vines that covered what is now Miami. The jungle melted away before their advance, and streets and houses took its place. On August 17 of that year Miami was incorporated a city, 300 registered voters being the number required by the laws of the State.

The city that started in this spectacular manner, with 1000 inhabitants, has more than fulfilled the hopes of its founders. From that beginning, which was unique even in this land of hustle and enterprise, and which gave the city its name, "Magic City," it has grown rapidly and steadily. The Royal Palm Hotel went up on the shore of the far-famed Bay Biscayne, and to the north, along the shore of the same beautiful bay, grew a long line of winter homes of Northerners. Smooth, hard, white streets, made of the oolitic limestone that underlies the whole of Dade county, were laid throughout the city.

Very early in the history of the city a marked preference for concrete and the native limestone for building purposes became manifest, and since 1910 much of the former material has been used.

The 100,000 tourists that are annually attracted to Miami by its balmy winter climate, its fishing, boating and surf bathing created a demand for hotels that was speedily and efficiently met. After the Royal Palm came the Halcyon Hall, the Plaza, the Green Tree Inn, the San Carlos, the Seminole and many other smaller hotels and boarding-houses, providing excellent accommodations for the migratory Northerner.

During the past three years the population of Miami has increased from 5471 to nearly 15,000. There has been nothing ephemeral about this growth. It has been satisfyingly substantial at all times, as attested by the solid character of its buildings. Although there are already two five

and one six-story office buildings completed and occupied, others are going up, and their windows are lettered weeks in advance of completion with the names of the men and firms who have rented them, thus giving good promise of plenty of tenants for the eight-story one that is planned.

With the expansion came the "wildcat-ers," and their operations have created many disgruntled customers and given the dealers who are satisfied with a legitimate profit many troubles. One prominent real estate dealer especially asked that this be emphasized, and that all investors in Miami real estate be warned to carefully ascertain the character of a dealer before buying anything from him. Too much stress cannot be laid on this point. In spite of the wildcat-ers, though, the value of Miami real estate has advanced rapidly and steadily, and will undoubtedly continue to do so.

Miami now numbers among its assets two ice factories with a combined daily output of 100 tons, a good city water supply and water system, gas and electric plants, fire department equipped with modern motor-driven machines (a good illustration of the up-to-date-ness of the city), five banks, having aggregate deposits of over \$3,000,000, and the 2½-mile Collins bridge, extending from the city across Bay Biscayne to the property of the Miami Beach Improvement Co.

All of the city streets are paved with the oolitic limestone that is so abundant and so cheaply excavated and applied. When this is rolled it sets almost like a poor mix of concrete, making a remarkably smooth, hard and durable surface. The city is not satisfied with this, however, but is preparing to lay pavements that will meet all the demands of a rapidly-increasing downtown traffic. Bids were opened September 1 for the paving of 50,000 square yards of streets, together with bids for 20,000 linear feet of curbing and 6000 linear feet of storm sewers. The paving proposals call for bids on five kinds of paving, namely, asphalt, asphalt block, creosoted wood block, bitulithic and brick. No decision as to the kind of paving to be used will be reached till the bids have been considered. Mr. James Nisbet Hazlehurst of Atlanta, consulting engineer, has charge of the work, which will be started immediately.

An interurban railway company, capitalized at \$1,500,000, has been incorporated to operate a line from Coconut Grove on the south to Fort Lauderdale on the north, and traversing the streets of Miami, a distance of about 31 miles. Commodore H. C. Roome is president, Mr. Nathan A. Cole is vice-president. A representative of the company is now in New York conferring with Stone & Webster, with a view to constructing the line. If Stone & Webster will not take it up, the Miamians declare they will build it themselves, as well as operate it. This is typical of the spirit of the people of Miami. When they want anything, they go get it. Palm Beach has signified its intention of building a line to Fort Lauderdale to connect with the line from Miami. If this plan is carried out, it will bring Miami into very close touch with all the towns along that part of the coast.

Beginning with January, 1914, Miami will have an annual street carnival. It will last from the 5th to the 10th of the month, and will be called the Carnival of the Magic Knights of Dade. Backed, as it will be, by plenty of money and the spirit and enthusiasm of Miami, it should be a great success, and an event well worth going far to see.

Miami should have wholesale supply houses to meet the needs of retail dealers

in all the small towns that are springing up so rapidly all around, and retail clothiers, house furnishers, etc., for Miami and for the people of the same towns who prefer to do that part of their buying in a larger place. She should have hat, bag, twine and paper mills to utilize the unlimited supply of exceedingly valuable fibrous plants of that territory.

A few miles to the south of Miami is the Redlands district, which grows the finest sort of grapefruit and is excellent for all other citrus and semi-tropical fruits, such as the avocado or alligator pear, mango and guava. The value of this land has been only recently realized, but already it is dotted with towns. It is in every way tributary to Miami. To the south, west and north stretch the 4,000,000 acres of the Everglades. The drainage of at least a very large part of this area is assured, the drainage of part of it being already accomplished. The Everglades Sugar & Land Co., with general offices in Miami, will complete about the first of October its 20,000-acre Davie farm, having the pumping stations so arranged that they can drain or irrigate the land as the season requires. About the middle of October the company expects to call for bids on the diking and ditching of a 25,000-acre tract.

The land Miami is built on is fine fruit land. All around the city are groves of oranges, grapefruit, limes, bananas, mangos, avocados, etc. The ground has foundation of rock formation, containing lime and phosphates. It is very porous, and the roots of the trees easily penetrate it and break it up.

The produce of the Redlands and of the land around Miami finds an eager market all over the Northern and Southern States.

The Florida East Coast Railroad furnishes transportation facilities.

Miami has a delightful and healthful climate. In winter it is so warm and balmy that surf-bathing is enjoyed in the coldest months, and in the summer the temperature does not go as high as that of most of the cities farther north. The Magic City is also entirely free from the stifling, sticky heat that makes so many Northern summer climates almost unbearable. Heat prostration is unknown. It is a healthful climate, free from fevers, chills, etc.

Through canals, rivers and lakes Miami already has transportation facilities for small boats to the interior of the State. One hundred thousand dollars have been appropriated by the Government for dredging in Miami's harbor, so that a deep-water channel to the sea has been assured. When the harbor improvements contemplated have been carried out, Miami will be ready to get its share of the coastwise trade that the Panama Canal will bring.

RICHARD WOODS EDMONDS.

### The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., September 8.

There was no unusual activity displayed in the pig-iron market the past week. However, the tonnage sold, in some instances, exceeded furnace make of foundry grades; but the total tonnage booked for the week did not go far beyond half the week's output of commercial iron. The transactions closed covered iron for prompt shipment and for delivery over the balance of the year at \$11 per ton at the furnace, No. 2 foundry basis. The prompt shipment iron represented car lots up to 100-ton lots for movement to Southern or local points, while 250 to 500-ton lots were sold for delivery over the balance of the year for both Southern and North-

ern delivery. In round numbers, there is produced in the Birmingham district 20,000 tons per week of foundry or iron for the commercial trade. There is equally as much basic iron produced, but this tonnage is taken care of by the finished product plants of the South and the territory into which the Southern furnaces can reach with their products by reason of favorable location with reference to low cost of production and freight rates. At present there are 13 furnaces in blast on foundry iron and 8 stacks operating on basic iron, producing an aggregate of 190,000 tons per month.

All furnace interests report a strict adherence to the \$11 base price for shipment during the balance of the year 1913. One producing interest reports that its base price has been advanced to \$11.50 per ton at the furnace for current year's delivery. This is an iron, however, that is a shade better than the ordinary standard Alabama iron, and is a very popular brand of iron in the South and North. Notwithstanding the fact that the Northern trade journals intimate that some Southern producers are quoting for delivery during the first quarter of next year at \$11.25, and for delivery through the first half at \$11.50 per ton, none of the heads of the selling department of Southern furnaces will admit that such is the case. As yet no specific sales have been mentioned, even by the Northern correspondents. Furnace interests state most positively that their books have not yet been opened for next year's business, and that there is nothing in present indications to warrant their doing so. From a selling standpoint, it would seem hardly advisable for them to do so, from the fact that sufficient business has already been booked to take care of the furnace needs during the year 1913, together with the spot business that naturally comes to hand during each month. From the standpoint of the buyer, it would seem advisable for him to take care of his next year's requirements, at least over the first quarter, on the usual 25 to 50 cents per ton advance over the present market price of \$11, if he should be able to do so. However, a more or less "saw-saw" game seems to be on between buyer and seller in regard to this matter. It is a fact that numerous inquiries have been received by producers for first and second quarter 1914 business, but no sales are yet reported. The following table of prices continue to govern the Southern market for delivery over the next four months of this year:

No. 1 foundry, \$11.50.  
No. 2 foundry, \$11.  
No. 3 foundry, \$10.50.  
No. 4 foundry, \$10.  
Gray forge, \$10.  
Mottled, \$9.75.  
Standard basic, \$11.  
Off basic, \$10.50.

The cast-iron pipe market has shown no improvement, and while manufacturers are going along with their business in about the same way as for the past several weeks, they express no hope for material change until financial matters shall have been cleared up sufficiently for the municipalities to figure on new business and repair work. Following are quotations per net ton f. o. b. cars Birmingham, viz.: Four-inch, \$22; six-inch and eight-inch, \$20.50, with an average of \$20 per ton for the larger sizes. Class "A," or gas pipe, is quoted at an advance of \$1 per ton over that asked for class "B."

The usual good business in coal and coke continues with the advent of fall. One producing interest sold 100 cars of coke for prompt shipment to a Western smelting plant. There is also coming up for consummation October 1 contract for

14,000 tons of coke for a Western smelter, which in all probability will be placed in the Birmingham district. Foundry coke is selling for \$3.75 to \$4 per ton at the ovens.

The Tidewater Securities Corporation, of which Mr. J. M. Dewberry of this city is president, has just formally closed its purchase of Dauphin Island from the Dauphin Island Company. The island in question is about 30 miles south of Mobile, Ala., at the lower end of Mobile Bay. There are about 3000 acres of land in the tract, and the transaction involves between \$250,000 and \$500,000. It is the intention of the Tidewater Securities Co. to connect Birmingham with tidewater by means of electric line to the Warrior River and water transportation to Gulf Terminal on Dauphin Island. The distance covered will be about 450 miles. Plans are not yet given out as to just when actual work will begin on the proposed line and terminal.

### \$5,000,000 STEEL PLANT.

Company to Manufacture Steel Rails and Other Products at Mobile, Using Cuban Ores.

The Southern Steel Co., capitalized at \$30,000,000, is reported to have completed arrangements ensuring the construction of an extensive plant on the river front near Mobile. It has purchased 8000 acres, 50 of which will be occupied by buildings and machinery representing an investment of \$5,000,000, the daily output to be 1000 tons of steel rails and other products. The plant will be constructed in two units, each of 500 tons daily capacity. Contracts have been awarded for clearing the land preparatory to constructing the works and building the necessary industrial city. The company is being organized by C. V. Mead of Denver, president of the Inter-Locking Rail & Structural Steel Co. of that city and Chicago; J. F. Barnhill of Chicago, engineer of the Inter-Locking corporation and inventor of the interlocking steel rail; L. C. Davis of Chicago, consulting engineer of the company; A. G. Wood, a New York steel engineer; Rupert Fry of Milwaukee, president of the Old Line Life Insurance Co., and other capitalists.

Mr. Barnhill wires the MANUFACTURERS RECORD as follows:

"Steel mill will have initial capacity of 1000 tons per day, with facilities for gradual increase; plant, with by-products coke ovens with capacity of 1000 tons per day, will cost approximately \$7,000,000."

Further detailing this enterprise, Mr. Mead sends the MANUFACTURERS RECORD an official statement as follows:

"For the past four months an association of New York, Milwaukee and Chicago parties have been assembling the necessary material and conditions for the establishment of an extensive iron and steel industry in the South. The parties have acquired an immense tract of land on the island of Cuba, containing vast deposits of high-grade iron ore. This tract of land embraces an area of over 500,000 acres. This tract of land is heavily wooded with the finest grade of mahogany, lignum-vitae and other hardwood common to the island. The land is advantageously situated with a sea frontage with a land-locked harbor.

"Having secured this ore deposit, the parties have been seeking a suitable location on the coast, convenient to coal fluxing, transportation and the like. With reference to the low cost of assembling the raw materials and distributing finished products, they have secured as a location to the plant a tract of land known as the Burgess property, located upon the Mobile River, north of the city of Mobile. This

land has a river frontage of about two miles, with an average depth, according to the United States Government chart, of a minimum of 29 and a maximum of 51 feet water depth, with some dredging at and above Chickasabogue bar. Boats of the heaviest draft can dock at the mill site, which is located between the river and the L. & N. R. R., which traverses the ground for its entire length from north to south.

"There has been likewise secured deposits of coal and limestone within easy reach of the mill with barge transportation.

"The object sought from the beginning and the conditions desired have all been secured, namely, the elements, materials and factors necessary and entering into the manufacture of steel and iron, with exclusive water transportation facilities. Second, water combined and connecting with inland transportation, for distribution of the finished products.

"More than 20 years ago, as every citizen of this State and the entire South will remember, the late Senator Morgan pointed to these people the wonderful advantages that awaited this State and the city of Mobile for the development of steel, making use of the coal and fluxing materials of the State in handling the vast iron deposits of Cuba. It has remained for these parties to lay hold of these natural conditions and reduce same to a concrete form, and the realization of the prophecy of the late Senator Morgan is at hand. The relation of Mobile to the Panama Canal gives increased advantage to this industry in the distribution of its products.

"As has been stated, the Louisville & Nashville crosses the land north and south upon the east side. Upon the west runs the Southern Railway. The mills are to be located between the Louisville & Nashville tracks and the river and between the Louisville & Nashville and the Southern the townsite is located.

"Contracts have been let for cutting and clearing away the timber and undergrowth preparatory to putting the mill site in condition for the erection of buildings and the installation of the machinery. The town, to be called New Mobile, is being platted. The work will be pushed all along the line, and it is expected that the mills will be in operation within the next 18 months.

"The mills will cost approximately \$5,000,000, and will have an initial capacity of 1000 tons per day, which will be increased as conditions may require. The name of the company now organizing for the purpose of taking over and operating this enterprise is the Southern Steel Co.

"In addition to the general steel and iron products, the company will have the right to manufacture in the United States steel rails and structural steel with interlocking joints, to the limit of its capacity, the patents for which are owned by the Inter-Locking Rail & Structural Steel Co. The company will also own the exclusive rights to interlocking joints for both Canada and Mexico."

### INTERNATIONAL REFRIGERATION

Exhibit to Be Made in Connection With the Congress at Chicago.

In connection with the meeting at Chicago, September 17-October 1 of the International Refrigeration Congress, J. F. Nickerson of Chicago, secretary-general of the congress, announces that there will be made an exposition of the application of refrigeration to the conservation, transportation and distribution of foodstuffs and other products, including the following features:

Operating and still exhibits of all en-



gines, machinery, apparatus, implements and devices employed in the art of refrigeration.

Exhibits of supplies and materials which are utilized in the process of ice manufacturing and refrigeration, or in the manufacture of machinery for the same.

Educational exhibit by the Government of foodstuffs—meat, fish, poultry, butter, eggs and fruits, as well as plants and flowers held under refrigeration for varying periods of conformity with American practice.

Private industrial exhibits of foodstuffs, including fruits, also flowers, held under or treated by refrigeration in accordance with American practice.

Exhibits by technical schools, colleges and universities, calculated to demonstrate developments in the science of refrigerating engineering.

Exhibits by commercial and manufacturing interests, such as meat packers, brewers, creamery and dairymen, ice-cream manufacturers and allied industrial concerns utilizing ice and refrigeration.

Exhibits of refrigerator cars in regular use transporting perishable foods, and of precooling systems.

Exhibits from foreign countries of the same scope and character as those from the United States, for which customs arrangements have been perfected by which exhibits returned are duty free.

The United States Government will have a large display of fruits, butter, cheese, meats, fish, eggs, poultry and other edibles held under refrigeration in accordance with improved practice as to period of storage, temperature and sanitary conditions.

## BRISTOL'S COMMANDING POSITION

### Within Easy Reach of Vast Resources for Industry.

(Special Cor. Manufacturers Record.)

Bristol, Va.-Tenn., September 6.

Keeping step with the onward march of Southern cities, Bristol has been advancing with more than ordinary rapidity along general commercial and manufacturing lines. The last year witnessed, and the present year is witnessing, growth among old concerns and the establishment of new and a decidedly accelerated impulse in all descriptions of industrial endeavor.

Bristol holds a commanding position with regard to certain resources, and in respect of certain territorial advantages, that must make it a factor to be reckoned with in the commercial equation of the future, when the conservation of natural forces and applied energies will have become recognized as the controlling element in industrial economy.

It is the center of a large hardwood area, from which many millions of feet of high-class timber are being cut annually.

It is within easy reach of the fine coal deposits of Southwest Virginia, and fuel can be laid down cheaply at its factory doors.

It lies close to the wonderful mineral beds that abound in East Tennessee, Southwest Virginia and Western North Carolina—iron ore, zinc, kaolin, tripolite, barytes, feldspar, bauxite, cement rock, building stone, glass sand, gypsum, rock salt and numerous others of greater or less importance.

It is surrounded by a section which is unsurpassed for stock raising, fruit growing, poultrying and general husbandry.

It is situated among water-power potentialities that will ultimately furnish hundreds of thousands of electric horse-power to turn the wheels of industrial thrift.

It is the converging point of a number

of railroads which, reaching out in all directions, make it the commercial and financial clearing-house for a wide scope of territory, and which with their connections, give the products of its manufacturing plants easy entrance into the principal markets of the country and the world.

Some of the advantages are being utilized, and the success with which those have met who are engaged in their utilization is assurance of a larger success to come with their more general use. Bristol has now some 40 manufacturing plants, making paper, leather, showcases, wood columns, sash, doors, blinds, mantels, washboards, bank fixtures, school and courthouse fixtures, interior trim and other lumber products, as well as large quantities of sawn and dressed lumber, trunks, porch and lawn swings, washing powder, brass fittings, boilers, engines, machinery, mine car wheels, steel dump mine cars and general foundry products, stoves, ranges, metal ceilings and shingles, brooms, flour, meal and feedstuff, proprietary medicines, pharmaceutical preparations, drugs, harness, ice, tanning extracts, coffins and caskets, overalls, pants, well and irrigation pumps; distilled spirits, neckties and hosiery, metal polish, "soft" drinks, packing-house products, candies, ice cream, blank books, loose-leaf ledgers and other printing-house products. Six new manufacturing plants were established during the last year, and the value of the manufactured output of the city was increased by 7.2 per cent over that of the previous year.

Principal among these manufacturing establishments are those engaged in the manufacture of lumber and wood products and their kindred industries, which depend on the forests for part, at least, of their raw materials. The lumber industry, and especially that handling hardwood lumber, has for many years been a very important one here, and hundreds of millions of feet have been either sawed and worked up here or hereabouts into the finished product, or have been purchased and shipped elsewhere by dealers making their headquarters here. In fact, Bristol has long been one of the chief centers of the hardwood business of the country. A kindred business, in that it gets a part of its working supplies from the surrounding forests, is that of the Dixie Tannery, Inc., which has operated here since 1893 a plant for making belt stock. This is a subsidiary concern at the Chas. A. Schieren Company, the well-known manufacturer of high-grade belting in New York city. The tanning business here was begun in a small way, the output being 50 hides a day, but it was gradually increased until now it turns out 100,000 hides a year. Formerly the leather was only tanned in the rough and shipped to New York for finishing, but in 1898 the finishing department was brought here, and now the leather is finished and cut into strips for shipment to New York, where it is made up into belting and marketed in all parts of the world. The plant uses hides costing \$2300 a day, and grinds up 250 carloads of tanbark a year. The Hol-ton Extract Co., manufacturing tanning extracts from wood, is another successful concern whose raw material comes from the forest.

The manufacture of boilers, engines, stoves, car wheels and other iron products comes natural to Bristol, situated as it is in the midst of iron fields, having for years been the location of an iron furnace—now temporarily blown out—and being near the Cranberry furnace at Johnson City, which makes a high-grade iron from the famous Cranberry ore. It is also the natural location for a large

mailing business, securing its wheat and corn from surrounding fields and grinding in transit the grain it gets from Western States. The output of flour approximates 1000 barrels daily.

The fine coking and steam coal so easily and cheaply secured from the Southwest Virginia mines adds greatly to the advantage of Bristol as an iron-founding and grain-milling point, as well as to its strength as a location for general manufacturing plants in whose operation power is a prime factor. But even the advantage that accrues to the city from the cheapness of its steam fuel is now surpassed by the possession of an ample supply of electricity, developed on the Watauga River near Elizabethton, Tenn., and brought over transmission lines to Bristol. The Watauga Power Co., recently passed into the hands of H. L. Doherty & Co., 60 Wall street, New York, who were already the owners of the Bristol Gas & Electric Co., and thus largely interested in Bristol progress and Bristol prosperity. Of 77 possible consumers of electricity here, 70 are now taking current from the Watauga company, and there is a prospect that yet others will discard steam for the electric current. The cheapness of electricity for lighting has caused the two governments of Bristol to adopt the White Way system of lighting, to the end that this is now doubtless the best-lighted city of its size in the country.

There are yet other hydro-electric possibilities—many of them, in fact—within easy reach of Bristol, only awaiting development to meet the demands of an increasing necessity for cheap power. They will finally be utilized to the upbuilding of a Greater Bristol.

The railroad facilities enjoyed have not only been important aids in bringing prosperity to the city's manufacturing plants, but have been largely instrumental in making it a wholesale and jobbing center of more than ordinary distinction among cities of its class. A large number of traveling men leave Bristol each season to carry the samples of its numerous wholesale houses over a large territory lying in Virginia, Tennessee, North Carolina and other nearby States, as well as some not so near. The houses they represent sell groceries, dry goods, notions, lumber and wood products, stoves and ranges, boilers, engines, machinery and foundry products, paper, paints, hats, shoes, drugs, proprietary medicines, pharmaceutical preparations, nursery stock, neckties, overalls, hosiery, meats, china and glassware, clothing, seeds, flowers, ice cream, flour, meal, feedstuffs and other staples. The wholesale and jobbing business of Bristol increased last year 9.8 per cent.

Another advantage Bristol enjoys as a wholesale and manufacturing center is founded in the strength of its banks and their ability to furnish accommodations for concerns doing an extensive business. These institutions are managed safely and yet liberally, and they have performed a conspicuous part in the city's upbuilding.

Yet another advantage enjoyed by Bristol industrially is the quantity and quality of its labor supply. Having been a manufacturing town for many years, it has what may be termed a "manufacturing population"—that is, a population largely made up of families accustomed to factory work. This labor element is for the most part white, and is composed of people far above the average of intelligence found in the factory districts of the North, recruited as they are from the slums of the Old World. These people are faithful and ambitious, and are not influenced by the "walking delegates" and

general trouble makers found so plentifully in other factory communities. Wages are low as compared with efficiency, yet the conditions under which the laborers live are such that what they earn counts for more than the higher wages received in other places.

In the matter of agricultural surroundings, which furnish so large a part of the basis for even a manufacturing town, Bristol is peculiarly well situated. The soils of the country round about are well adapted to the growing of all field crops, to the best of the trucking crops and to the raising of fruit. Wheat and corn yield profitably, and the test of the grasses grow in great profusion. Bluegrass is indigenous, and springs up without planting wherever allowed to do so. This makes it a fine grazing section, and it has long been noted for the production of high-grade cattle, horses and mules. Dairying also, a business that has been too much neglected, is found profitable wherever tried on a commercial basis, while poultrying is a valuable adjunct to the farming business and brings annually many thousands of dollars to those engaged in it in this section. As a fruit-producing section this is possibly unsurpassed anywhere in the country, apples, peaches, plums, pears and the other orchard fruits all growing to a high state of perfection where given the proper attention.

These agricultural advantages not only appeal strongly to the man who wishes to engage in the business of farming, but add largely to the inducements the city offers as a place of residence and the location for business, because they enable the family living in the city to purchase the best of farm, garden and orchard supplies at small cost as compared to what must be paid in cities more remote from the bases of such supplies.

The educational advantages at Bristol constitute another feature most attractive to those in search of homes and business locations. While the city is one in business and in the spirit of industrial progress it is decidedly two in matters of municipal government, and each side watches the other with jealous eye to see that no advantage accrues from any political move that can be duplicated. In the matter of keeping their public schools up to the highest point of proficiency there has been keen rivalry, and the consequence is that on both sides the political dividing line there are excellent schools, running from the primary grades through high-school courses of approved sufficiency. Diplomas from these high schools are accepted as standards of scholarship in schools of college grade throughout the country, admitting their holders to matriculation without examination. In addition to the public schools, there are here three colleges of high standing—Suñins College and Virginia Intermont College, both for women, and Kings College, for men. The graduates from these schools are to be found occupying many positions of trust and honor in many States.

The good-roads movement, now becoming general throughout the South, has found many enthusiastic advocates in the Bristol section, and in both Virginia and Tennessee the nearby counties have voted big appropriations for highway improvements. The consequence is that the section is becoming a net work of improved highways, and soon it will be possible for the traveler in carriage or automobile to go at top speed in any direction from the city. These roads will enable the farmers to reach the city much more easily than heretofore, with the consequent lowering of prices for farm products and the attendant improvement in living conditions.

In this connection it may be well to call attention to Bristol as a location for plants manufacturing drain tile, metal culverts, iron bridges and other things necessary in the building of good roads. The raw materials lie on all sides, the necessary power can be secured at low cost, the market is close and is being daily enlarged.

Bristol has a history that runs beyond the days of the Revolution, the recital of which warms the blood and stirs the patriotism of those who are moved by memories of those heroic times. In this section were recruited the regiments that won the great victory for the continental government at King's Mountain, and at Sycamore Shoals, a few miles away on the Watauga River, they met to begin their march to that field of glory. Its "scenic investiture" endows it with a charm that strongly appeals to those who love the limnings of Nature in her picturesque moods, and it is a favorite stopping point for tourists and those in search of rest and recreation. Its railroads run directly to a number of the most popular of Southern mountain resorts. Its high altitude, its freedom from excesses of both heat and cold, add greatly to its attractions as a place of residence.

The Bristol Board of Trade, whose membership consists of the progressive business men of the city on both sides of the State line, is an active organization, and has done a great deal in the past few years to bring the city to the favorable attention of the country at large. Its activities have been rewarded by the acquisition of a number of new industrial and commercial establishments and the awakening of a spirit of civic pride among the people generally that has redounded greatly to the advantage of the municipality.

Geo. Byrne.

"gum" was an important one. It wouldn't split, saw or burn, and it decayed very slowly. In fact, it was a great nuisance. It was girdled with the axe and allowed to die and decay even while great crops of corn were grown among the standing trunks, often four to five feet in diameter. But the barrel and crate men found a way to do what the lightning bolt hesitated to undertake. They found a way to utilize that waste product.

The gum swamps were invaded by the patent "logging" apparatus, and the heavy gum logs were handled by steam power, loaded onto the cars, hauled to the great mills, cut into suitable lengths for different packages, put into stevedore vats and then run through the veneering machines, shaving the logs up into veneer, thick or thin, according to the articles to be made, among which articles were baskets, barrels and crates. In the meantime the gum is made into veneer at several points in the gum district of Virginia and North Carolina, and the veneer is cut into staves of proper length and width, and by the millions loaded into cars and shipped to such factories as the one shown. In such establishments the staves are set up. The hoops are also made in or near the swamps where the timber is found, and also shipped in car lots, so that nimble hands and fingers set up these gum staves and the barrels are quickly and cheaply made. The Norfolk trucking section alone uses at least 4,000,000 to 5,000,000 barrels yearly.

Formerly all barrels were made in the city of Norfolk for the Norfolk section, and the truckers had to haul them out to the truck farms—quite a job to haul that many barrels, say, 20 to 40 at a load.

It would require 100,000 two-horse wagon loads to move that quantity, and the average haul would be four to five



BARRELS OF GUM WOOD IN NORFOLK TRUCKING BELT.

### BARRELS FOR TRUCKING.

How the Formerly Useless Gumwood Has Been Utilized.

[Special Cor. Manufacturers Record.]

Oceana, Va., September 5.

The accompanying illustration shows what is locally known as a barrel factory. There are at least 10 such institutions in the Norfolk trucking belt besides the great factory in the city. Every line of rail leading to Norfolk harbor passes through the trucking section, and one or more of these local barrel factories are located on the railroad lines, not less than 10 of them. It was only a few years ago that it was found to be possible, practicable or profitable to use the "gum tree." All the lowlands of Eastern Virginia and North Carolina are known as "gum lands" because of the fact that the "gum" tree predominates. It is a tree that seemed to be absolutely worthless to saw, or split, or utilize in any of the ordinary ways. In fact, it has been stated, and seems to be a pretty well substantiated fact, that even electricity hesitates to attack the "gum." For year and years, at least 300 years, the problem of how to get rid of the

miles. Therefore, the necessity for putting the barrels closer to the farms. Formerly a man might make two loads of barrels a day from city to his farm. Now he can make a dozen loads often.

Every year there is a quickening of the pace, a shortening of the haul, a cheapening in the movement and making of the products of the soil. Agricultural pursuits are becoming so closely interwoven with and dependent on industrial pursuits that those who engage in one line have to keep an eye on the other line in order to stand any show of success. A. JEFFERS.

### Wants Auto Repair Shop.

Chamber of Commerce,  
Wilmington, N. C., September 6.  
Editor Manufacturers Record:

Wilmington is badly in need of a vulcanizing and auto repair shop. If you have any inquiries from parties seeking a location of this kind we will be pleased to have you refer them to the Chamber of Commerce.

H. B. BRANCH, Secty.

Mr. Moses Folsom, lately connected with the Southern Railway Co., has been elected secretary of the Board of Trade of Palatka, Fla.

## GOOD ROADS

### WEEK'S HIGHWAY RECORD.

#### Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

#### Bonds Voted.

Angleton, Tex.—Velasco District, Brazoria county, voted \$75,000 bonds to construct three roads.

Boonville, Mo.—City voted \$25,000 bonds to improve streets.

Cumberland, Md.—Allegany county authorized \$10,000 bonds to improve roads.

Gatesville, N. C.—Gates county will issue \$5,000 bonds to improve roads.

Pascagoula, Miss.—District No. 3, Jackson county, will issue \$10,000 bonds to build roads.

Pascagoula, Miss.—District No. 4, Jackson county, will issue \$15,000 bonds to build roads.

Seadrift, Tex.—City voted \$8,000 bonds to grade, shell and otherwise improve streets.

Waynesboro, Miss.—Wayne county ordered \$100,000 bonds to build roads.

#### Bonds to Be Voted.

Convent, La.—Road District No. 1, St. James parish, will vote on \$60,000 bonds to build roads.

Lake Charles, La.—Calcasieu parish votes October 16 on \$900,000 bonds to build roads.

#### Contracts Awarded.

Baltimore, Md.—City awarded \$56,247.25 paving contract.

Charlotte, N. C.—City awarded \$86,017 paving contracts.

Kansas City, Mo.—City awarded \$38,500 contract for street improvements.

Laurel, Miss.—City awarded \$88,452.12 paving contract.

Richmond, Va.—City awarded \$12,906 contracts to improve streets in Southside.

#### Contracts to Be Awarded.

Baltimore, Md.—City receives bids until September 17 to grade, curb and pave 11,800 square yards sheet asphalt.

Baltimore, Md.—City receives bids until September 17 to grade, curb and pave 5060 square yards with sheet asphalt and 570 square yards with vitrified block.

Dandridge, Tenn.—Jefferson county receives bids until September 15 to grade about 35 miles of road.

De Land, Fla.—Volusia county will build 70 miles road.

Hayleyville, Ala.—Winston county receives bids until October 1 to grade, drain and surface road with sand-clay or gravel; expenditure 8000.

Lafayette, Ala.—Chambers county receives bids until October 1 to grade 2.75 miles of road; expenditure \$6000.

Montgomery, Ala.—Board of Revenue receives bids until September 29 to grade and gravel about four miles of road.

Tallulah, La.—Madison parish will construct road; \$8000 appropriated.

Tarboro, N. C.—Edgecombe county will build three miles of sand-clay road.

Texarkana, Ark.—Texarkana-Ashtown Highway Committee will construct 20 miles dirt and gravel road; cost \$7500.

#### American Road Congress.

Twenty-eight organizations will take part in the American Road Congress, to be held at Detroit, Mich., in the week of September 29 under the leadership of the American Highway Association and the American Automobile Association. State

highway commissioner will take part in discussing the important problems of road construction and maintenance. Secretary of Agriculture Houston will be the spokesman of the National administration at the congress. An important move bearing upon State legislation will be made at the session to be held under the auspices of the American Bar Association, at which steps will be taken toward the formation of an official interstate commission for codifying and simplifying State road laws.

President Logan Waller Page calls attention to the exhibits to be made by the United States Government, the States, and nearly 100 of the leading manufacturers of the congress, which will illustrate every known method, material and equipment for road construction and maintenance.

#### To Build Auto and Wagon Road.

George G. Stockard, Mountainburg, Ark., denies a recent press report that it was proposed to build a railroad from Winslow via Mountainburg to Fort Smith. He says: "No railroad construction planned. We are planning automobile and wagon road from Fort Smith to Winslow, a distance of 40 miles. Will cost \$75,000 when complete, and will connect with the Kansas City roads at Winslow and Fayetteville. It is a public enterprise, managed by local committees in towns along the route, and it will be built largely by labor along the way, and little capital will be required." Alma, Five Springs and Mountainburg are among the towns which will be on the road. There will be two steel bridges 125 feet long.

## MINING

### North Carolina Produces Most Mica.

For many years North Carolina has been the largest producer of mica in the United States, according to the United States Geological Survey. Prior to 1895 the output came chiefly from the larger mines and consisted of big sheets of fine quality. At that time large quantities of small sheet mica that would cut plates less than three inches square were thrown on the dumps as waste. After the small sheet and scrap mica became valuable, the dumps at the large mines were worked over and the quantity of mica produced was thereby greatly increased. Now that most of the dumps have been worked over and only a few large mines are in operation, the output is barely maintained by a large number of small mines and prospects, probably as many as a hundred. Many of these are worked by the mountaineer farmer and miner at times when crops are laid by, and occasionally one of the prospects develops into a large deposit.

#### A Virginia Mica Field.

J. G. McCray, superintendent the Ridgeway Mica Co., Ridgeway, Va., writes to the MANUFACTURERS RECORD: "I mined out one block of mica last week that weighed 977 pounds. I get many blocks of mica that weigh from 300 to 600 pounds. The vein of mica is six feet wide. I am down 110 feet deep. The mica goes on down. I located and developed this mine, and, from what I see and know, it will take many years to mine out all the mica in it. The mica belt at Ridgeway is one mile wide, and the mica is of the very best quality. I have had 35 years experience in mining mica. There are also great deposits of feldspar here of fine quality. All this country needs is capital and grit. We have the goods."



## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### NORFOLK & WESTERN'S GROWTH.

**A Prosperous Year, With Many More Industries—Extensions and New Equipment.**

The Norfolk & Western Railway Co. has issued its seventeenth annual report, which covers the fiscal year ended June 30, 1913, in pamphlet form. The income statement therein shows total operating revenues \$43,739,920.52, increase as compared with the next preceding fiscal year \$4,004,683.47; total operating expenses \$28,565,812.96, increase \$2,896,383.09; net revenue from rail operations \$15,174,107.56, increase \$1,108,300.38; railway operating income after taxes (including also deficit of \$7608.09 in auxiliary operations) \$13,714,499.47, increase \$1,079,101.79; gross income \$15,478,981.06, increase \$1,480,341.62; net income after fixed charges, etc., \$11,106,641.41, increase \$1,632,217; income balance transferred to credit of profit and loss after payment of dividends on adjustment preferred stock \$10,186,973.41, increase \$1,632,217. Ratio of operating expenses to total operating revenues 65.31 per cent., as compared with 64.60 per cent. last year.

The profit and loss statement shows balance at the beginning of the fiscal year \$8,580,831.99, to which were added the credit balance from the income account for the year and miscellaneous credits, making the total credits \$18,779,513.04, out of which were paid dividends on common stock amounting to \$5,759,521.50; also appropriations for additions and betterments, amounting to \$1,553,088; which, with other smaller debits, left the credit balance June 30, 1913, at \$11,423,106.35, an increase of over 33 per cent. as compared with the balance on June 30, 1912.

Considerable data is presented concerning the construction work of the company. It is stated that by the end of next year it is expected that the Virginia-Carolina Railway (which the Norfolk & Western controls) will have completed its North Carolina division as far as the Ashe-Watauga county boundary, nearly 48½ miles, the estimated total cost of the work being \$1,250,000. "This division," continues the report, "will traverse large areas of virgin white pine, oak, poplar, chestnut and hemlock timber, and will serve an excellent stock raising, fruit and general farming section. It has further development possibilities in regard to high-grade iron ores and bark extract."

The Norfolk & Western also proposes to build an extension of 20½ miles to the New River, Holston & Western Railroad from Rocky Gap, in Bland county, Virginia, to the headwaters of Hunting Camp Creek at an estimated cost of \$250,000, and it will be finished in about a year. The extension will go through large virgin forests and a well-populated agricultural region, which will furnish important tonnage to the line. Control of this railroad was acquired during the past year. It connects with the Norfolk & Western near Narrows, in Giles county.

The Williamson & Pond Creek Railroad was completed during the year from Williamson, W. Va., into Pike county, Kentucky, following the valley of Pond Creek to coal mines. The main line is 12 miles long, but branches, spurs and sidings make its total trackage about 25 miles.

It is also observed that the connecting line from Inger, W. Va., to Cedar Bluff, Va., about 15 miles, was finished and opened for service last spring, as heretofore reported. On the Tug Fork branch

the Ballard-Harmon spur of the North Fork branch, one mile long, has been finished, and the King branch, near West Vivian, W. Va., also about a mile in length, will be completed this month.

Concerning the electrification of 30 miles of line between Bluefield and Vivian, for hauling the heavy coal traffic there, the report says that the management after full investigation determined that the service could be conducted by electricity with much greater economy than by steam. There the density of train service is greatest and the opposing grades the heaviest. The cost of this improvement will be about \$3,500,000, and about two years will be required for its completion.

There are 45 miles of second-track work in progress in four or five sections on the line in Virginia and West Virginia, which will be completed about February next, and there will then be 606 miles of double-tracked main line in operation between Norfolk, Va., and Columbus, O., and 97½ miles of single track. This estimate includes as second track the low-grade lines around Petersburg and Lynchburg and the Big Sandy line.

Among the new local industries along the Norfolk & Western lines are 26 manufacturing of mineral, metal and other products, 44 manufacturing of lumber products, 21 manufacturing of farm implements and farm products and 12 coal mines. There are 140 companies producing coal and coke with 221 mines, of which 212 are being operated. There are 5407 coke ovens in blast out of a total of 13,931. There are 12 furnaces in blast with a daily capacity of 1770 tons of pig-iron, and 10 out of blast with a daily capacity of 1435 tons.

The company added to its equipment during the year 54 locomotives, 24 all-steel mail, baggage and express cars, 501 all-steel, drop-bottom gondola cars, 1636 all-steel hopper cars, 25 cabin cars and some other road service equipment. The passenger locomotives, 5 in number, were all built at the Roanoke shops of the railroad company, as were the drop-bottom gondola cars, 1500 of the hopper cars, the cabin cars and a scoop car. Deliveries are also being received on orders for 80 Mallet freight locomotives, 11 passenger locomotives, 5950 freight cars, and 69 passenger train cars, costing about \$11,000,000.

### A \$2,500,000 DEVELOPMENT.

**Railroads, Barge Lines, Coaling Station and Other Features at Dauphin Island.**

The Tidewater Securities Corporation, which was organized last spring at Birmingham, Ala., by J. M. Dewberry and others with \$100,000 capital stock to build a railroad from there to Gadsden, 60 miles, and also from Birmingham via Ensley to the Warrior River, has closed the projected deal for the purchase of Dauphin Island below Mobile to fulfil its plans for the operation of a barge line from the river terminus of the railroad to a deep-water port. The island, which contains 3000 acres, will have an initial development of considerable magnitude, including a terminal railroad, and this will be immediately followed by the port development, including the dredging of a deep harbor and the construction of docks, warehouses and a coaling station. Geo. T. Bishop of Cleveland, O., is president of the Dauphin Island Company.

The following telegram from the Tidewater Securities Corporation to the MANUFACTURERS RECORD confirms the report of the deal and briefly explains how the property will be used:

"Purchase price Dauphin Island over

\$300,000; acreage, 3000; initial development, including railroad, water, lights and sewerage, \$500,000; to be immediately followed by the port development, consisting of deep harbor, docks, warehouses and coaling station, costing about \$2,000,000."

The corporation is to be a holding company for subsidiary companies thus: Birmingham & Tidewater Railway Co., which will construct the railroad from Birmingham to the Warrior River, 16 miles; Tidewater Navigation Co., which is to equip and operate steamboats and barges on the Warrior and Tombigbee rivers to Mobile and Dauphin Island, 438 miles; Dauphin Island Railway & Harbor Co., which will develop the island as described, and which also owns Little Dauphin Island; Dauphin Island Land Co., which is to develop Big Dauphin Island as a city and also as a summer and winter resort. The corporation is furthermore to develop other allied enterprises, which may include a coal company, a public utility company, a warrant storage warehouse company, etc.

A recent report from Birmingham said that the corporation would build a railroad direct from there to Mobile Bay, in addition to establishing the barge line, but this is an error, as will be seen by the following statement made by Mr. Dewberry to the MANUFACTURERS RECORD:

"We beg to advise that our company will not build a railroad all the way from Birmingham to Dauphin Island, but proposes to build a railroad from Birmingham to the Warrior River at or near its forks, just 16 miles west of the city limits of Birmingham. We also propose to build a terminal railroad from Dauphin Island across to the mainland, connecting with the Mobile & Ohio Railroad at a point near Alabama Port. This terminal railroad will be only 8½ miles in length."

This latter railroad, it appears, is to be for the connection of all railroads at Mobile with the docks and piers of the new port outlet. It is said that there is a natural depth of 15 feet of water at Dauphin Island, and it can be easily dredged out to accommodate large ocean steamships.

Mr. Dewberry is president of the Tidewater Securities Corporation, with office in the Brown-Marx Building at Birmingham.

### IMPORTANT RAILWAY LINK.

**James U. Jackson's Electric Railway to Reach Connection With the Duke Roads.**

Interesting facts have recently developed concerning the construction of two electric interurban railways in South Carolina. It appears that the Greenville, Spartanburg & Anderson Railway, which is already operating between Greenville and Greenwood, and is rapidly completing an extension from Greenville to Spartanburg, with a prospect of soon starting construction on another link from the latter point to Gastonia, N. C., thus connecting up the two sections of the Piedmont Northern lines, will be connected from Greenwood via Edgefield, S. C., with the Carolina & Georgia Railway, which James U. Jackson and others are about to build from Augusta, Ga., to Columbia, S. C., via Johnston and Batesburg. The connection will be constructed by the Carolina & Georgia Railway, and it will supply the demand for an interurban line from Greenwood via Edgefield to Augusta. J. B. Duke and others are back of the Piedmont Northern lines, the South Carolina end of which has just decided upon an increase of \$2,500,000 in its capital stock, presumably for financing the Gastonia-

Spartanburg link of about 50 miles, which is all that is needed to make up a through high-speed electric railway from Charlotte, N. C., to Augusta, Ga., about 205 miles.

Contract has been let to Michael P. McGrath of 17 Battery Place, New York, for the construction of the Carolina & Georgia Railway, and he is expected to begin work within 30 days. Gadsden E. Shand of Columbia is chief engineer, and he is finishing up the surveys.

There does not appear to be any plan for concert of action between the two railway companies, but the fact that the Carolina & Georgia Railway has definitely decided to construct a branch to Greenwood and has awarded contract leads to a conclusion that the lines will operate together for through service sooner or later. It may be observed that the Duke lines have not intimated that they might extend to Augusta, although some consideration has been given to a suggestion that they be extended to Atlanta. This latter, however, seems just now to be at a standstill.

### Louisiana & Arkansas Extension.

The eastern extension of the Louisiana & Arkansas Railway, which is now under construction from Jena, La., to the Mississippi River, is being operated as far as Jonesville. It will be 46 miles long when entirely completed. A report on the work says it is being laid with 75-pound rails, and that the ties are placed in durable cement gravel. A large steel bridge over the Washita River, and which is now in use, cost about \$400,000.

The line when finished will connect with Natchez, Miss., a terminal of the Illinois Central Railroad, making a desirable connection. Other connections will also be reached at the same point. The road traverses rice and cotton lands. The earnings have been devoted to the construction of the extension, and President Wm. Buchanan is reported saying that no bonds will be issued for some time, as the company has sufficient cash for its work.

### New Equipment, Rails, Etc.

Alexandria & Western Railway, T. C. Lawless, president, Garden City, La., has bought 50 cars from Joseph Kaufman, New Orleans.

Norfolk & Western Railway has ordered a 130-ton electric locomotive to be built by the Baldwin Locomotive Works and the Westinghouse Electric & Manufacturing Co., this being the first of the lot for the electrified section of main line between Bluefield and Vivian, W. Va.

Bryan & Central Texas Interurban Railway is reported contemplating the purchase of two gasoline-electric passenger cars.

Missouri, Kansas & Texas Railway has ordered 7500 tons of rails from the Pennsylvania Steel Co.

Cumberland & Westernport Electric Railway has ordered four double-truck cars from the J. G. Brill Company, Philadelphia.

International & Great Northern Railroad has ordered three oil-burning locomotives of the consolidation type from the American Locomotive Co.

Monongahela Valley Traction Co., Fairmont, W. Va., says a report, has bought two semi-convertible cars from the G. C. Kuhlman Car Co.

### Dallas-Waco Electric Railway.

Next month the Southern Traction Co. will be operating electric cars from Dallas to Waco, Tex., 100 miles, according to a report from Dallas, where its headquarters are situated. The company has been

operating that part of the line between Dallas and Waxahachie for about a year. It is announced that the formal opening of the extension to Waco is set for October 1, and that the branch to Corsicana will also be in operation by October 15, and perhaps a week earlier than that. J. F. Strickland of Dallas is president of the road, which enters that city over a viaduct of reinforced concrete.

A baggage station is being built in Dallas, construction thereof having just begun. It is a one-story structure of brick, 100x200 feet. There will also be several baggage sheds. Extra men have been employed to hasten completion of the shops at Trinity Heights.

### Texas City Now Has Street Cars.

[Special Cor. Manufacturers Record.]

Texas City, Tex., September 8.

The Texas City Street Railway Co. has begun service with two steel pay-as-you-enter cars and two trailers, operating over three miles of tracks which connect the northern part of the city with the docks. The line is built with steel rails of 60 pounds per yard weight laid on cypress ties. It extends on 6th street from 18th avenue north to 4th avenue south, and then eastward to the docks. 6th street being the principal business thoroughfare. There is a cross line from 6th street along 9th avenue north to 10th street at the steam railroad station. The motor cars seat 40 and the trailers 60 passengers. Current is supplied for operation from a 500-volt generator at the electric power plant of the Texas City Transportation Co. The capital stock of the railway company is \$400,000. Thomas J. Davis of Duluth, Minn., is president, the other officers being H. B. Moore, vice-president and general manager; R. M. Orly, assistant manager, and Harvey A. Thomas, secretary, all of Texas City.

### A West Virginia Traction Road.

The Elkhorn Valley Traction Co. has been chartered in West Virginia with \$100,000 capital stock, its main office being in the town of Clark (post-office Northfork, W. Va.), and it has a franchise through Clark as well as through Keystone, W. Va. The route is about five miles long, and the line will serve about 15,000 people. The company is now preparing the grade for tracklaying, and it is hoped to be ready for operating the proposed line by May 1 next at the latest. Col. L. E. Tierney of Powhatan, W. Va., is president; W. E. Stewart of Keystone, vice-president; Dr. L. H. Clark of Kyle, treasurer; C. C. Hale of Keystone, secretary, and A. Catzen of Northfork, general manager.

### Texas City's Coastwise Trade.

[Special Cor. Manufacturers Record.]

Texas City, Tex., September 5.

Statistics of the coastwise commerce of Texas City during the fiscal year ended June 30, 1913, show that 213,416 tons of freight, valued at \$18,769,191, were handled. The movement of leading commodities was as follows: Copper wire, 2187 tons; steel rails, 23,144 tons; structural steel and iron, 3834 tons; wire products and tools, 3883 tons; paints and oils, 2063 tons; groceries, 3779 tons; machinery, 8546 tons; furniture, 2782 tons; dry goods and notions, 1837 tons; coal, \$9,371 tons; cotton, 4186 tons; oils, 4788 tons; lumber, 13,784 tons. Miscellaneous commodities not enumerated above amounted to 14,470 tons. The coastwise commerce, together with a foreign commerce valued at \$43,966,062, brings the total business of the year to \$62,735,253.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### MANY SOUTHERN WOODS.

More Than Thirty Kinds of Lumber Represented in the Annual Cut.

Of 29 varieties of lumber cut in the country in 1911, the latest year for which official figures are available in quantities sufficient to justify separate classification, 24 were cut in the South. The only woods not represented in the Southern cut were Douglas fir, redwood, Western pine, white fir, sugar pine and lodgepole pine, confined principally to the far West. In addition, cherry was cut in West Virginia, buckeye in West Virginia, Tennessee, Kentucky and North Carolina, locust in Virginia, magnolia in Texas and Louisiana, osage orange in Oklahoma and Texas, willow in Mississippi and sassafras and silverbell in Tennessee. The 1911 cut by varieties and by separate States in the South was as follows:

#### SOFTWOODS.

##### Yellow Pine.

Alabama.....	1,029,565,000
Arkansas.....	1,090,744,000
Florida.....	887,698,000
Georgia.....	701,135,000
Kentucky.....	19,209,000
Louisiana.....	2,630,645,000
Maryland.....	53,858,000
Mississippi.....	1,732,384,000
Missouri.....	78,628,000
North Carolina.....	1,393,304,000
Oklahoma.....	110,314,000
South Carolina.....	533,552,000
Tennessee.....	81,202,000
Texas.....	1,628,258,000
Virginia.....	778,820,000
West Virginia.....	13,623,000
Total.....	12,832,889,000
United States.....	12,896,746,000

##### Cypress.

Alabama.....	2,816,000
Arkansas.....	45,229,000
Florida.....	92,359,000
Georgia.....	40,847,000
Kentucky.....	2,207,000
Louisiana.....	682,897,000
Maryland.....	407,000
Mississippi.....	29,624,000
Missouri.....	22,510,000
North Carolina.....	26,914,000
Oklahoma.....	125,000
South Carolina.....	18,426,000
Tennessee.....	2,090,000
Texas.....	3,970,000
Virginia.....	10,360,000
Total.....	979,251,000
United States.....	981,527,000

##### Hemlock.

Kentucky.....	11,196,000
Maryland.....	10,004,000
North Carolina.....	18,225,000
South Carolina.....	203,000
Tennessee.....	34,512,000
Virginia.....	31,787,000
West Virginia.....	262,490,000
Total.....	368,327,000
United States.....	2,355,308,000

##### Spruce.

Kentucky.....	1,611,000
Maryland.....	2,992,000
North Carolina.....	2,036,000
Tennessee.....	1,552,000
Virginia.....	43,036,000
West Virginia.....	237,465,000
Total.....	288,692,000
United States.....	1,291,728,000

##### White Pine.

Alabama.....	1,270,000
Georgia.....	3,882,000
Kentucky.....	1,245,000
Maryland.....	1,688,000
North Carolina.....	53,012,000
Tennessee.....	25,833,000
Virginia.....	50,476,000
West Virginia.....	23,552,000
Total.....	160,438,000
United States.....	3,230,584,000

##### Cedar.

Alabama.....	5,904,000
Arkansas.....	67,000
Florida.....	692,000
Georgia.....	4,340,000
Kentucky.....	4,417,000
Louisiana.....	40,000
Missouri.....	5,887,000
North Carolina.....	8,210,000
South Carolina.....	218,000
Tennessee.....	26,424,000
Texas.....	43,000
Virginia.....	17,321,000
West Virginia.....	28,000
Total.....	71,461,000
United States.....	374,925,000

#### Larch.

Maryland.....	28,000
Virginia.....	50,000
Total.....	78,000
United States.....	368,216,000

#### Balsam Fir.

North Carolina.....	10,000
Virginia.....	48,000
Total.....	58,000
United States.....	83,375,000

#### HARDWOODS.

##### Oak.

Alabama.....	55,694,000
Arkansas.....	299,187,000
Florida.....	105,000
Georgia.....	25,033,000
Kentucky.....	312,603,000
Louisiana.....	89,212,000
Maryland.....	35,422,000
Mississippi.....	101,385,000
Missouri.....	175,300,000
North Carolina.....	150,000,000
Oklahoma.....	20,700,000
South Carolina.....	7,629,000
Tennessee.....	382,033,000
Texas.....	27,866,000
Virginia.....	258,718,000
West Virginia.....	381,977,000
Total.....	2,352,899,000
United States.....	3,098,444,000

##### Red Gum.

Alabama.....	10,816,000
Arkansas.....	195,828,000
Florida.....	737,000
Georgia.....	3,120,000
Kentucky.....	22,246,000
Louisiana.....	39,401,000
Maryland.....	1,880,000
Mississippi.....	109,186,000
Missouri.....	50,230,000
North Carolina.....	12,596,000
Oklahoma.....	1,347,000
South Carolina.....	15,117,000
Tennessee.....	68,275,000
Texas.....	10,509,000
Virginia.....	10,445,000
West Virginia.....	2,212,000
Total.....	562,945,000
United States.....	582,967,000

##### Poplar.

Alabama.....	28,894,000
Arkansas.....	2,066,000
Florida.....	776,000
Georgia.....	16,417,000
Kentucky.....	108,812,000
Louisiana.....	1,241,000
Maryland.....	5,609,000
Mississippi.....	11,496,000
Missouri.....	2,451,000
North Carolina.....	58,315,000
South Carolina.....	4,490,000
Tennessee.....	119,034,000
Virginia.....	66,567,000
West Virginia.....	131,086,000
Total.....	569,498,000
United States.....	659,475,000

##### Chestnut.

Alabama.....	587,000
Georgia.....	755,000
Kentucky.....	21,082,000
Maryland.....	19,047,000
Mississippi.....	39,997,000
North Carolina.....	209,000
Tennessee.....	55,330,000
Virginia.....	48,884,000
West Virginia.....	126,965,000
Total.....	312,866,000
United States.....	529,022,000

##### Maple.

Alabama.....	1,265,000
Arkansas.....	2,775,000
Florida.....	776,000
Kentucky.....	6,215,000
Louisiana.....	168,000
Maryland.....	4,864,000
Mississippi.....	975,000
Missouri.....	9,657,000
North Carolina.....	3,991,000
Oklahoma.....	378,000
South Carolina.....	302,000
Tennessee.....	7,244,000
Texas.....	30,000
Virginia.....	4,810,000
West Virginia.....	77,815,000
Total.....	121,245,000
United States.....	951,967,000

##### Beech.

Alabama.....	486,000
Arkansas.....	7,000
Georgia.....	381,000
Kentucky.....	26,656,000
Louisiana.....	35,000
Maryland.....	1,290,000
Mississippi.....	147,000
Missouri.....	143,000
North Carolina.....	429,000
South Carolina.....	13,000
Tennessee.....	11,387,000
Texas.....	50,000
Virginia.....	2,575,000
West Virginia.....	37,453,000
Total.....	81,652,000
United States.....	403,881,000

##### Basswood.

Alabama.....	425,000
Arkansas.....	90,000
Georgia.....	60,000
Kentucky.....	8,214,000
Louisiana.....	53,000
Maryland.....	1,743,000
Mississippi.....	125,000
Missouri.....	458,000
North Carolina.....	4,273,000
Tennessee.....	8,354,000
Texas.....	116,000
Virginia.....	8,809,000
West Virginia.....	36,213,000
Total.....	68,977,000
United States.....	304,621,000

#### Hickory.

Alabama.....	4,405,000
Arkansas.....	45,255,000
Florida.....	942,000
Georgia.....	1,079,000
Kentucky.....	26,737,000
Louisiana.....	6,656,000
Maryland.....	1,427,000
Mississippi.....	14,127,000
Missouri.....	14,301,000
North Carolina.....	6,157,000
Oklahoma.....	2,017,000
South Carolina.....	337,000
Tennessee.....	58,793,000
Texas.....	1,457,000
Virginia.....	5,018,000
West Virginia.....	13,343,000
Total.....	182,089,000
United States.....	240,217,000

#### Cottonwood.

Alabama.....	2,015,000
Arkansas.....	52,457,000
Florida.....	376,000
Georgia.....	387,000
Kentucky.....	1,720,000
Louisiana.....	48,037,000
Maryland.....	11,000
Mississippi.....	32,687,000
Missouri.....	11,545,000
North Carolina.....	355,000
Oklahoma.....	1,752,000
South Carolina.....	101,000
Tennessee.....	8,308,000
Texas.....	2,248,000
Virginia.....	385,000
West Virginia.....	45,000
Total.....	162,429,000
United States.....	198,629,000

#### Ash.

Alabama.....	2,267,000
Arkansas.....	20,138,000
Florida.....	208,000
Georgia.....	1,987,000
Kentucky.....	7,570,000
Louisiana.....	15,509,000
Maryland.....	743,000
Mississippi.....	6,443,000
Missouri.....	9,569,000
North Carolina.....	3,197,000
Oklahoma.....	3,095,000
South Carolina.....	1,652,000
Tennessee.....	15,331,000
Texas.....	3,490,000
Virginia.....	2,522,000
West Virginia.....	8,371,000
Total.....	101,889,000
United States.....	214,398,000

#### Tupelo.

Alabama.....	7,542,000
Arkansas.....	4,035,000
Florida.....	47,000
Georgia.....	982,000
Kentucky.....	449,000
Louisiana.....	39,787,000
Maryland.....	45,000
Mississippi.....	5,718,000
Missouri.....	3,705,000
North Carolina.....	13,967,000
South Carolina.....	2,570,000
Tennessee.....	1,364,000
Texas.....	692,000
Virginia.....	12,290,000
West Virginia.....	157,000
Total.....	93,050,000
United States.....	98,142,000

#### Elm.

Alabama.....	664,000
Arkansas.....	12,228,000
Georgia.....	212,000
Kentucky.....	3,364,000
Louisiana.....	1,791,000
Maryland.....	32,000
Mississippi.....	3,636,000
Missouri.....	15,318,000
North Carolina.....	53,000
Oklahoma.....	1,776,000
South Carolina.....	140,000
Tennessee.....	6,108,000
Texas.....	588,000
Virginia.....	223,000
West Virginia.....	325,000
Total.....	46,358,000
United States.....	236,108,000

#### Sycamore.

Alabama.....	124,000
Arkansas.....	6,617,000
Florida.....	5,000
Georgia.....	76,000
Kentucky.....	3,625,000
Louisiana.....	98,000
Maryland.....	182,000
Mississippi.....	1,182,000
Missouri.....	8,617,000
North Carolina.....	120,000
Oklahoma.....	1,192,000
South Carolina.....	28,000
Tennessee.....	5,855,000
Texas.....	125,000
Virginia.....	995,000
West Virginia.....	513,000
Total.....	28,965,000
United States.....	42,836,000

#### Walnut.

Alabama.....	99,000
Arkansas.....	342,000
Georgia.....	31,000
Kentucky.....	4,025,000
Maryland.....	246,000
Mississippi.....	75,000
Missouri.....	2,016,000
North Carolina.....	798,000
Oklahoma.....	197,000
South Carolina.....	32,000
Tennessee.....	2,832,000
Texas.....	30,000
Virginia.....	1,415,000
West Virginia.....	1,605,000
Total.....	13,901,000
United States.....	38,293,000



Birch.

Alabama.....	22,000
Arkansas.....	9,000
Georgia.....	10,000
Kentucky.....	457,000
Maryland.....	2,451,000
Mississippi.....	30,000
Missouri.....	704,000
North Carolina.....	806,000
Oklahoma.....	15,000
South Carolina.....	2,000
Tennessee.....	1,249,000
Texas.....	10,000
Virginia.....	888,000
West Virginia.....	18,478,000

Total..... 25,131,000  
United States..... 432,571,000

All Other Hardwoods.

Alabama.....	1,402,000
Arkansas.....	189,000
Florida.....	15,000
Georgia.....	11,000
Kentucky.....	9,045,000
Louisiana.....	10,356,000
Maryland.....	629,000
Mississippi.....	1,395,000
Missouri.....	846,000
North Carolina.....	1,899,000
Oklahoma.....	952,000
South Carolina.....	101,000
Tennessee.....	4,360,000
Texas.....	1,618,000
Virginia.....	3,139,000
West Virginia.....	11,069,000

Total..... 47,356,000  
United States..... 69,548,000

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Electric Drive Employed.

The Rosemary Manufacturing Co., Roanoke Rapids, N. C., is now using the electric drive throughout its plant and on its additional 300 looms individual drive will be employed, whereas on the spinning frame a total of 16 four-frame drive motors will be used. These motors being of 20 and 25 horse-power capacity. Individual drive will also be used on the pickers, the motors being placed on the "A" frame. In addition, there will be used about 300 horse-power in motors for lineshaft drive. The improvements at the plant of the W. E. Hooper & Sons Company, Baltimore, are practically completed, and electric drive has been employed throughout. Electricity is purchased from the Consolidated Electric Light, Heat & Power Co., and the installation includes 150 motors, totaling 2000 horse-power. The Westinghouse Electric & Manufacturing Co., Pittsburgh, furnished the electrical machinery for the two mill companies.

National Cotton Manufacturers.

At the Atlantic City meeting, September 30-October 2, of the National Association of Cotton Manufacturers, the program will include papers on the advantages of commercial motor cars in cotton manufacturing, care of belts in cotton mills, cotton spinning industry in Russia, Dacca muslins, Egyptian cotton culture in the Southwest, English conditioning houses, industrial accidents, their compensation and prevention, lubrication of cotton machinery, methods of cost keeping and clear accounting essential to efficient mill management, permanent fireproofing of cotton goods, precautions for safety in factories, purchasing coal under specifications, sizing for cotton warps, and the new tariff and foreign competition.

Electrical Drive Equipment.

Russell Manufacturing Co., Alexander City, Ala., will install equipment for electric drive consisting of three 150 K. V.

A. and one 20 K. V. A. transformers, 38 motors ranging from 1 horse-power to 50 horse-power, switchboard panel, switches and accessories. Riverside Mills, Augusta, Ga., will add to their electrical drive equipment a 150-kilowatt alternating-current generator with 5-kilowatt exciter and two 50-horse-power motors. Cabarus Cotton Mills, Kannapolis, N. C., will add twenty 20-horse-power special four-frame motors and switches to equipment for electric drive. All the electrical machinery mentioned was purchased from the General Electric Co., Schenectady, N. Y.

Aycock Hosiery Mills.

The Aycock Hosiery Mills, capital stock \$100,000, has been organized with R. C. Aycock as president-manager and purchased the plant heretofore operated by Mr. Aycock. This mill has a daily capacity of 1000 dozen pairs of fine gauge hosiery, which will be increased about 50 per cent. next June, when the company will install a dyehouse.

Holston Branch Mill.

The Holston Manufacturing Co., Lenoir City, Tenn., will install 250 knitters and ribbers and electric power equipment in its branch mill at Morristown, Tenn. About 250 operatives will be employed, and, as stated last week the building to be erected will be a one-story 200x200-foot structure.

Bradford Knitting Mill.

The Bradford Knitting Mill, Statesville, N. C., will add 25 new 200-needle knitting machines, and has ordered this equipment. It will also install 5, 10 and 15-horse-power motors, one of each, for the electric drive, and is in the market for this electrical machinery.

A \$35,000 Knitting Company.

The Riceville (Tenn.) Knitting Mills has been incorporated, with a capital stock of \$35,000, by R. J. Fisher, C. W. Oliphant, D. H. Roberts, John Scafford and J. M. Lockmiller.

Cotton Waste Wanted.

L. C. Fischer, Box 635, Charleston, S. C., wants names and addresses of dealers in white and colored cotton waste and engine wipers.

Textile Notes.

J. H. Gault, Union, S. C., will build knit-goods mill.

The Salisbury (N. C.) Cotton Mills will build a two-story brick addition.

R. A. Love of Gastonia, N. C., has purchased the Trenton (Tenn.) Cotton Mills and will add some new machinery.

Hermitage Cotton Mills, Camden, S. C., will hold stockholders' meeting on October 1 to consider increasing capital stock from \$235,000 to \$250,000.

The Lydia Cotton Mills, Clinton, S. C., will add 1440 spindles, these being contained in the six spinning frames mentioned last week as contracted for.

The French Broad Manufacturing Co., Asheville, N. C., has increased its capital stock from \$200,000 to \$750,000, the increase being \$500,000 of preferred 7 per cent. stock.

Bedstead Casters.

R. Faquelin, 154 Faubourg St. Martin, Paris, France, writes to the MANUFACTURERS RECORD as follows:

"Will you please let me know the names of the best American manufacturers for bedstead casters."

FOREIGN NEEDS

To Represent Manufacturers.

Comptoir General d'Exportation, 63 Rue de Wattignies, Paris, France, writes to the MANUFACTURERS RECORD as follows: "We shall be glad to enter into communication with American manufacturers interested in markets where we sell goods. This company was founded by Rene Amiel, who spent many years traveling in the East and in the Balkan countries and in the northern portions of Africa. The management is in the hands of Emringer & Dietz. The program of our country is to get together the goods of the various manufacturers desiring to get an opening in our markets, especially in the markets of the Balkans, of Russia, of the Orient and of North Africa. Now that peace has finally been concluded in the Balkans, it is certain that there will quickly be renewed activity throughout that territory. All our business is centralized at Paris, and from that point we direct our agents and communicate with our clients. We are satisfied with a small commission upon all business that we conduct to a successful termination. Our company has employed throughout the districts in which it operates, and where our general manager will shortly make a complete circuit, a force of 90 agents, especially selected from the very best in their line."

For English Trade.

Herbert Simmons, manager of Quality Saw Co., Ltd., Norfolk House, Laurence Pountney Hill, London, England, writes to the MANUFACTURERS RECORD as follows:

"We are prepared to act as sole agents on a commission basis or would place our offices and organization at the disposal of any good firm, for a guaranteed contribution to our yearly expenses and a commission. We could handle iron and brass screws for wood, emery and corundum wheels, files, engineers' hand tools generally, and carpenters' hand tools, etc. We are sure that if properly backed by an enterprising firm we could build up a thoroughly good connection. So far as the outlook for selling American goods in this country is concerned, we believe that there is a good opportunity for any enterprising firm who is prepared to put up the necessary capital. The enormous output amongst shippers and exporters in this country has induced several large American firms to open up their own factories on this side, which we think is very good proof of the amount of business that can be done in this country by American manufacturers."

Seeking American Agencies.

Ch. Cescau, 76 Avenue de Jette, Bruxelles-Kockelberg, Belgium, writes to the MANUFACTURERS RECORD as follows:

"I am looking for agencies for American factories, but as I am not an engineer, I do not handle the machines themselves, but only accessories and supplies. For instance, I would like to reach the Garland Nut & Rivet Co., Broderick & Bascom Rope Co., John A. Roebbling & Sons Co., J. G. Speidel, Geo. P. Clark Co. and Progressive Manufacturing Co., but I only want to act for them as agent. The articles which are most in demand with me are small tools, kitchen supplies and accessories and articles for bicycles and motors."

The Texas City, Tex., refinery of the Pierce-Fordyce Oil Association is making paraffin wax, the special machinery that has recently been installed having a daily capacity of more than six tons.

MECHANICAL

Wagon Loaders for Handling Sand, Stone and Gravel.

The steady increase in recent years in the use of sand and stone, due to the growth of concrete work, and the great amount of road building has caused the handling and rehandling of large quantities of material, much of which is done by the shovel and cart methods. This is especially true in the case of road building, where the location of the work is constantly changing, making necessary the loading and unloading of the materials used in construction. The unloading has been simplified by the dump carts and self-dumping wagon, but the loading is mostly done by the use of hand shovels. This is hard and exhausting work, and with the constant increase in wages and shortening of the length of the standard working day has become a large and uneconomical item in the cost of any extensive piece of work.

In a contract which includes the loading of several thousand tons of sand, stone or gravel from piles on the ground to cars or carts, the pay of laborers, the cost of transportation in cars, the first cost of material and the unloading of the material from the carts are practically fixed amounts. But the cost of loading the material from the storage piles into carts is capable of reduction. This can be done by the use of an elevator mounted on wheels so as to be regularly moved about and operated by small motor or gasoline engine. Such machines are manufactured by the Link-Belt Company of Philadelphia, and two types are shown in the illustrations. One of the types somewhat similar to those shown consists essentially of a single strand bucket elevator, with buckets attached at intervals of about two feet, the whole mounted on a steel trunk with large wheels. The elevator delivers to a chute, from which carts are filled. The continuous feature makes possible a high capacity, and the short lift uses but little power. For handling gritty materials a chain is used which has in its joints case-hardened pins and bushings, which greatly prolong its life, and for handling material like crushed stone the buckets are fitted with manganese steel digging teeth or prongs to prevent the excessive wear caused by the stone. The machine saves the labor of lifting from the ground level over the side of the cart, and when handling material such as sized gravel or anything that runs readily, a large amount can be fed to the foot of the machine by cascading or pulling down by shovels. This is especially true in handling hard coal or dry sand where the angle of flow is fairly flat.

In actual operation, the engine of the machine is started, and a clutch thrown in, which puts the chain and buckets in motion, and the machine is backed into the pile until the buckets strike the material. They will pull through the material as long as it flows by gravity, but finally the buckets will have made for themselves a clear path. The material is then trimmed or fed by men with shovels into within reach of buckets, and it is so much easier for men to push the material down in this way than to throw by shovels into the cart that two men with one of these machine are reported to have handled sand at the rate of 40 tons an hour, and one man working on hard coal a ton a minute. By the use of such a machine two or three men can put material into carts at a rate which might require ten men if using shovels in the ordinary way. In dollars and cents it has been proved that a saving of from 5 to 10

cents a ton can be made in handling materials in any large quantity. From this it is easy to see what a large field there is for this type of machinery, and the saving that can be effected when the quantity is over 20 tons a day. Portable loaders are also being used by a number of concerns merely to relieve the congestion in their yards, even though the loading is done by the cart drivers who are paid by the purchasers of the sand.

Starting with the original idea of an elevator mounted on wheels, a number of

another car placed in position at the other side. The spout is rotated through 180 degrees, which delivers the supply at once to the second car, eliminating practically all waiting for cars.

From the fact that most sand or gravel banks and sand piles are remote from the source of electric current, a majority of these machines are equipped with gasoline engines. The engines are similar to those used on agricultural and farming machinery, fitted with magneto and governor to keep the speed within limits.

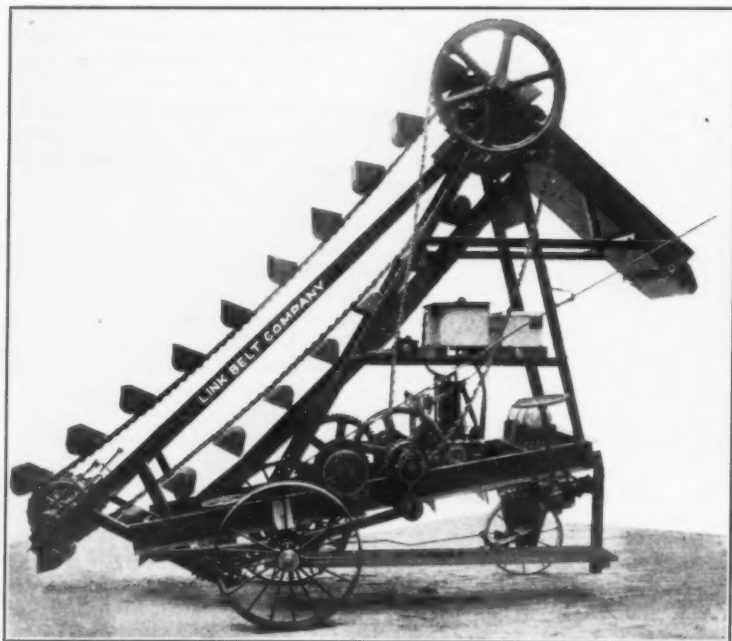
barrow storage hopper. The location of the stone and sand piles and the quantities in them are calculated to keep just ahead of the finished roadbed, and when one pile is used up the mixer and loader are pulled by horses to the next stone pile.

Another very successful application of the wagon loader is in quarries, where there are no storage pockets. Stone can be stored in the fall and winter, and at a very small proportional cost it may be reloaded into carts and wagons for shipment at the height of the season. Most quarries find a ready market for all the stone they can produce in the summer, and it is a well-known fact that larger quantities of this material could be sold if the

Elevator Co. of Chicago. Portable elevators are manufactured by the company to suit different requirements, and slight adjustments and fittings may be applied to the general type of elevators to meet a wide range of requirements.

The four distinct types of Brown portable elevators are the "Standard" elevator or tiering machine; the "Combination" piler and conveyor; the Sectional conveyor and the Unloading machine. They vary in size and design, according to the requirements of the materials to be handled, and may be combined to suit specified conditions of piling, elevating or conveying.

The "Standard" elevator is made in



LINK-BELT SELF-PROPELLING WAGON LOADER.

modifications have been made in their use. One form consists essentially of the addition of a rotary screen at the head of the elevator, delivering screenings to one chute and rejections to another. This type of machine has been used mostly for repaving macadam roads. The old macadam is plowed up and broken and fed by a gang of men to the foot of the elevator, which delivers it into the screen. By means of the screen the sand and dirt are taken out and delivered to a wagon on one side, and the rejections of the screen, consisting of screened material of a certain size, are delivered to a wagon on the other side, and can be used over again for the new work.

Another modification of these machines is shown in the illustration, in which driving gears have been added to make the machine self-propelled in either direction. The operator stands on the running-board at the head of the frame, with his starting and stopping levers, steering gear and engine control all within easy reach. The advantage of the self-propelled type is in traveling short distances and in moving from one bin to another where several kinds of material have to be handled. The capacity of all of these types of machines is placed at about 50 tons an hour, but this can be increased or cut down by changes in the size of the buckets. In actual practice, while the buckets have a theoretical capacity of 50 tons an hour, the amount of material delivered into the wagon by the machine depends entirely on the uniformity with which the material is trimmed or fed to the machine, and this is largely a matter of practice with the trimmers.

Another form of machine is designed for handling sand. The elevator is made slightly steeper, and the spout at the head is pivoted so that it can discharge in front or on either side of the machine, so that a car can be run to one side of the machine and be filled, and in the meantime

One of the illustrations shows one of the most successful applications of the portable loader. This machine is being used on a contract calling for several miles of concrete roadbed 20 feet wide and 6 inches thick. The stone and sand are deposited by carts in piles as shown, at intervals of about 200 yards. The concrete is mixed in a portable mixer, and the value of a wagon loader here is in the speed with which the wheelbarrows can



LINK-BELT PORTABLE LOADER IN ROAD BUILDING.

be loaded for filling the mixer. The loader was fitted with a special chute and gate for filling the barrows, and the chute has a capacity of several barrow loads of stone. One or two men can keep the hopper full, and when a man wants a barrow load of stone he can get it in less than five seconds. The foreman in charge of this work stated that from his previous experience in road building, he estimates that three men and this machine replaces a force of 10 men, which he has had to have for this operation on former work. The upper chute on this loader is used for filling wagons, and is put in operation by the closing of the gate leading to the wheel-

barrow storage hopper. The location of the stone and sand piles and the quantities in them are calculated to keep just ahead of the finished roadbed, and when one pile is used up the mixer and loader are pulled by horses to the next stone pile.

While a great many portable wagon loaders are in successful daily operation handling stone, sand, gravel, coal, earth, pyrites, etc., their general use for loading materials is believed to be only in its infancy. With the increased difficulties of securing efficient labor, employers are finding it profitable to use modern labor-saving machinery. Teamsters, as a rule, are said to be well pleased with the loading machines, as they are relieved of the work of shoveling into wagons

eight regular sizes for tiering stacks from 6 feet up to 30 feet. The "Combination" piler and conveyor is made with two carriers, the upper one being adjustable to pile from the floor up to any reasonable height. It is particularly adapted for heavy bags, rolls, barrels, etc., weighing up to 750 pounds. It may also be used as one section of a horizontal or inclined elevator system. The Sectional conveyor is made in lengths and weights to suit conditions, the different sections being interchangeable and complete with driving gear. The sections are supported by portable and interchangeable platform, which may also contain the power equipment. The Unloading machine is used for unloading commodities in sacks, bales, boxes, etc., from gondola or box cars, from vessels and for elevating packages from basements to upper stories of warehouses. The carrier brings the packages up and delivers them on a table, from which they slide off to a truck. This is the type shown in the illustration.

The capacity of the various types of machines varies with the weight of goods handled up to three tons per minute. The machine is self-contained, carrying its own power in the frame. They may be operated by electric motor or gasoline engine, and the power required varies from two to five horse-power.

They occupy little more space than a loaded truck, and will pass through an ordinary warehouse door by lowering the carrier. One of them can be pushed by two men, and the power does not need to be cut off when the machine is being moved.

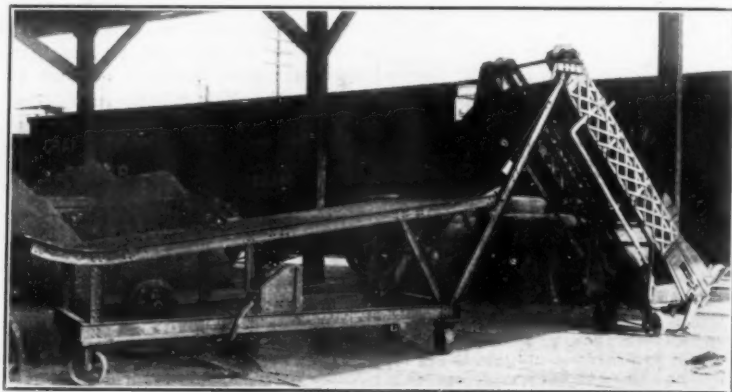
The new docks of the Merchants & Miners' Transportation Co. at Savannah are fitted with this and other quick-handling machinery and modern appliances for the rapid handling of cargoes, both loading and unloading.

#### Trumbull Steel Co.'s Great New Plant.

The big sheet and tin products manufacturing plant at Warren, O., is now completed, and is in active operation with

#### Portable Elevators for Handling Freight.

An example of the progress being made in the handling of freight by steamship companies is found in the new portable elevator installed by the Merchants & Miners' Transportation Co. at its new Savannah docks. Among the equipment for efficient and quick handling of cargoes the Brown portable elevator, shown in the accompanying illustration, has been installed and is used for handling heavy freight, such as pig iron and other heavy packages of suitable size. This elevator was manufactured by the Brown Portable



BROWN PORTABLE ELEVATOR ON MERCHANTS & MINERS' STEAMSHIP DOCKS.



1500 men employed and an estimated annual payroll of \$1,000,000.

The plant has cost over \$2,000,000 to construct and equip, and is said to be one of the most complete in the country. The most improved machinery obtainable has been installed. The fact that it manufactures both sheet and tinplate is expected to prove particularly advantageous, as it will enable purchasers to obtain a wide variety of products at one plant.

The plant is situated on the Mahoning River on a tract of land of 70 acres, well

gear driven with power furnished by an 1800-horse-power engine. The building is equipped with five overhead cranes of 25 tons, 20 tons and 10 tons capacity, two of them being of the 10 tons and two of 25 tons. There are eight double furnaces constructed of asbestos brick.

The roofing building is 600x160 feet, and was also constructed by the Riter-Conley Company. The pickling and galvanizing of the sheets is done in this building, and all the formed roofing and siding is made there. The shipping department is also located in the building.

found in the yard trackage. An industrial electric railway runs between the different buildings of the plant, so that material can be transferred quickly from one department to another.

The products of this company will include corrugated sheets, pressed standing seam roofing, V-crimped roofing, roll roofing, individual and cluster metal shingles, metal ceilings, metal sidings, plain brick, rock-faced brick, rock-faced stone, weatherboard and elevator siding; plain and corrugated ridge roll and capping, roofing tin, charcoal tines, long tines sheets,

Okla., to Hove, Ark., and with branches making a total of 365 miles.

The service required of the new gas-electric motor car consists of making one round trip a day over the northern division of the road, traversing 102 miles, the running time one way being 2 hours and 45 minutes and the scheduled speed 18.5 miles per hour.

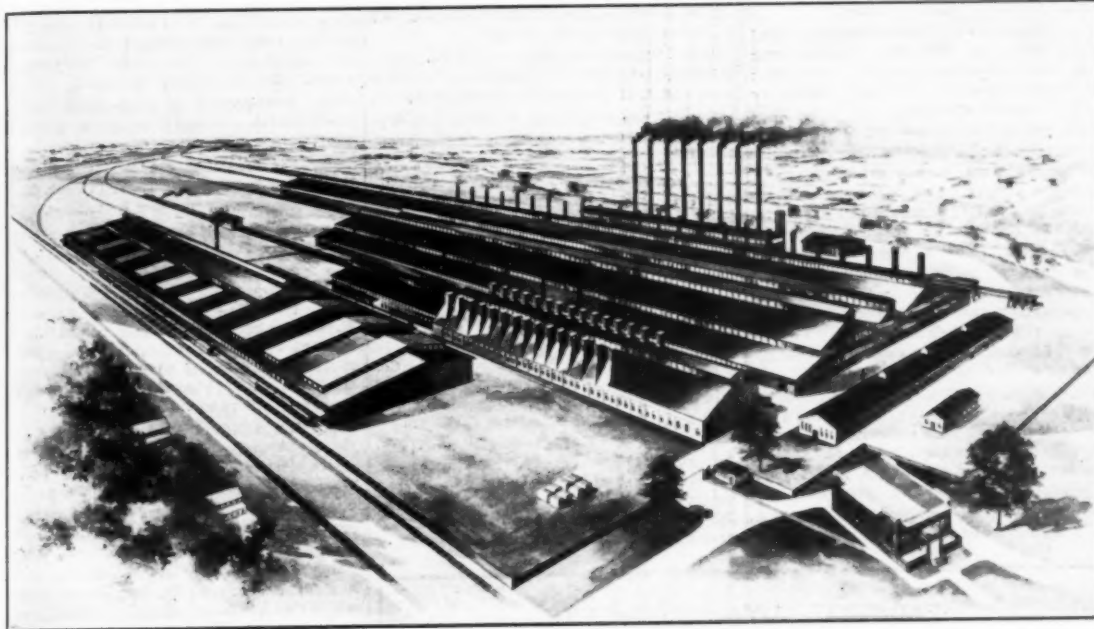
The car is of the combination passenger, smoking and baggage compartment type manufactured by the General Electric Co., Schenectady, N. Y. It is 71 feet 8 inches long, 10 feet 5 inches wide, and weighs approximately 52 tons. It has a total seating capacity for 86 people. A center vestibule with side entrances runs crosswise between the passenger and smoking compartments. There is also a rear platform entrance leading into the passenger compartment.

The usual standard all-steel construction, except in the case of the interior finish, prevails throughout the car.

The generating unit consists of the standard eight-cylinder four-cycle gas engine of the "V" type, direct connected to a 600-volt commutating pole electric generator, designed to meet the special conditions the service demands. Starting the engine is effected by compressed air taken from the main reservoirs of the airbrake system, which are built with surplus capacity for this purpose. The main air compressor is driven from the crankshaft of the main engine, and is fitted with an automatic governor which maintains a constant pressure. The engine can rotate at normal speed, irrespective of the speed of the car, and deliver its maximum power, a feature of great advantage on grades or in the event of emergencies.

An auxiliary equipment is also provided, consisting of a two-cylinder four-cycle gas engine direct connected to a single cylinder air compressor and lighting generator. The function of this set is to supply an initial charge of air for starting the main engine and to deliver power for lighting the car. The set is started by hand.

Energy is transmitted directly without the intervention of mechanical change-speed gearing. The voltage is governed by varying the strength of the generator field, which is accomplished by the movement of a single handle on the controller, and the resultant speed changes of the



THE 70-ACRE SHEET AND TIN PLATE PLANT OF THE TRUMBULL STEEL CO.

above high water. The shipping facilities also include a branch of the Pennsylvania Railroad Co.'s line and the main lines of the Erie and the Baltimore & Ohio Railroad.

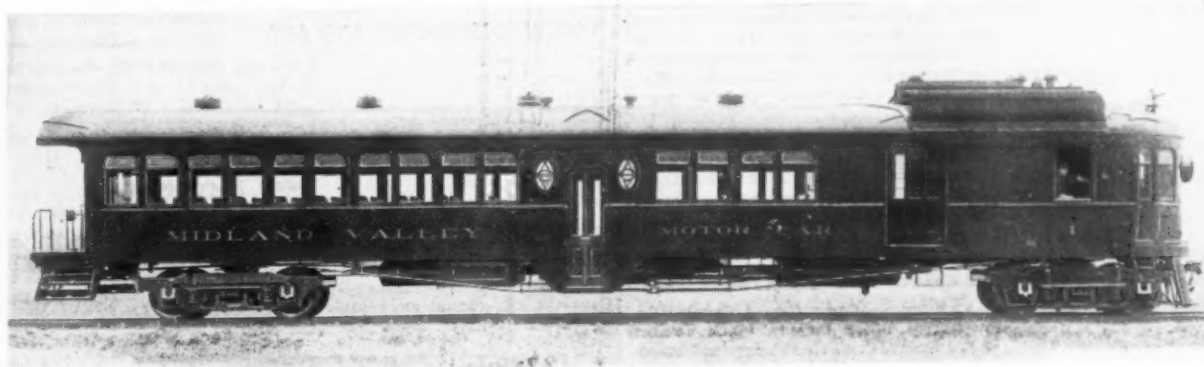
The large buildings occupy practically the whole of the available land area. They are shown in the accompanying illustration from the architect's drawings as the buildings are at present complete. The machine shop and storehouse are located in one brick and structural steel building, the machine shop being equipped with special apparatus for keeping the tools and machinery in good condition. Another

The corrugating machines are so constructed that the dies may be changed easily for any type of corrugated roofing required. The various machines in the roofing department are operated by individual electric motors. The motors are manufactured by the Peerless Electric Co. of Warren, O., and by the Westinghouse Electric & Manufacturing Co. of East Pittsburgh, Pa.

The tin department is in a building 440x70 feet, constructed of brick and structural steel, so arranged that the workmen obtain full benefit of natural light. A wide variety of products of tin

bright charcoal tins and bright coke tins for furnace pipe.

The attractive office building is shown in the foreground of the illustration. It is located at the mill, thus enabling the officers of the company to keep in close touch with the operating department. President Jonathan Warner of the company is one of the well-known steel men of the industry in the Mahoning Valley. He has been prominently connected with the industry for many years, and is thoroughly experienced in the steel business. He was formerly associated with the American Sheet & Tinplate Co. of Young-



NEW GASOLINE-ELECTRIC MOTOR CAR USED IN SOUTHWEST.

building contains the power and light plant, which provides all the steam and electric power for driving the machinery of the plant and supplying electric lights.

The main building is 800x200 feet, and contains the hot mills, cold mills, annealing-room, picklers and bar shears. It is of structural steel, and was erected by the Riter-Conley Company of Pittsburgh. The hot mill engine is 3000 horse-power, and the drive wheel is 25 feet in diameter. There are six hot mills on each side of the engine, six being for sheets and six for tinplate. The cold rolls are

manufacture will be turned out by these mills. The fact that both sheet and tin products are made in the one plant makes possible a wide variety of sheet metal and tin products.

It is estimated that the plant will place on the market each year about 60,000 tons of sheet and tinplate. In order to facilitate the shipping of this material a large Davenport locomotive, manufactured by the Davenport (Iowa) Locomotive Works, has been purchased, and handles the freight cars in the yard. Facilities for 50 freight cars at one time are

town. The establishment of the Trumbull Steel Co.'s plant at Warren forms an important addition to the steel industry of the country.

#### Gas-Electric Motor Car on a 365-Mile Railway.

The Midland Valley Railroad Co. has recently placed a gas-electric motor car in operation for supplementary service on its main line. It is shown in the illustration. The complete system extends from Wichita, Kans., through Muskogee,

motors produce a smooth and rapid acceleration without rheostatic power losses or gear changes. A 150-gallon gasoline tank is suspended underneath the car. While the engine is running the gasoline is pumped automatically, and when first starting is forced up by a hand pump.

The address of William Griffith of Scranton, Pa., at the last session of the American Mining Congress, on the leasing of mineral lands, has been republished in pamphlet form.

# Construction Department

## TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

### BRIDGES, CULVERTS, VIADUCTS

Ala., Mobile.—Mobile County Board of Revenue will construct bridge across Perch Creek on Cedar Point Rd.; bids received until Oct. 6 on concrete and wooden structures; plans and specifications at County Highway Engr.'s office, 11 Bank of Mobile Bldg. (See Machinery Wanted.)

Ala., Montgomery.—Montgomery and Elmore counties contemplate constructing bridge across Tallapoosa River at Judkins Ferry, between Montgomery and Wetumpka; cost \$30,000 to \$50,000; Thos. H. Edwards, County Engr., is preparing plans.

Ark., Mountainburg.—Geo. G. Stockard interested in building two 125-ft. steel bridges in connection with automobile and wagon road. (See Road and Street Work.)

D. C., Washington.—House Committee is considering proposition to construct \$4,000,000 bridge across Potomac River; District Comrs. advise Manufacturers Record: "No plans have been prepared."

Ga., Dalton.—Whitfield and Murray counties will construct steel bridge over Conasauga River; concrete floor. Address Whitfield County Comrs. at Dalton or Murray County Comrs. at Spring Place.

Md., Baltimore.—City will construct steel truss bridge across Gunpowder River at Maans Hill; 900 ft. long; Board of Awards lets contract Sept. 17.

Miss., Mayersville.—Issaquena County Comrs. let contract Memphis (Tenn.)

Bridge Co. to build 4 steel bridges; cost \$10,800. (Lately noted.)

S. C., Chester.—City will construct concrete bridge over Walker Branch at Center St. Address The Mayor.

Tex., Burnet.—Burnet County Comrs. contemplate issuing \$30,000 bridge bonds.

Tex., Corpus Christi.—Nueces county voted \$165,000 bonds to build causeway across Nueces Bay, connecting mainlands of Nueces and San Patricio counties. Address County Comrs. (Lately noted.)

Tex., Houston.—City will construct steel swing bridge at Hill St. crossing over bayou; 22 foot roadway; two 6-ft. sidewalks; cost \$20,000; receives bids until September 24; T. C. Tarver, City Engr.

Tex., Liberty.—Liberty County Comrs. let contract Austin Bros., Dallas, at \$35,100 to construct bridge across Trinity River; 1 steel span of 250 ft. and 2 steel spans of 140 ft. each; reinforced concrete piers; 1334 ft. creosoted pile approaches; J. B. Simmons, County Judge. (Call for bids lately noted.)

Tex., Rockport.—Aransas county voted \$155,000 bonds to construct wagon causeway across channel from Live Oak Peninsula to Lamar, connecting Aransas and Copano bays. Address County Comrs. (Lately noted.)

Va., Coeburn.—Wise county will build bridge across Guest River, 2 mi. from Coeburn; 100-ft. steel span; concrete substructure; bids received Sept. 18; P. St. J. Wilson, State Highway Commr., Richmond, Va. (See Va., Norton; also Machinery Wanted.)

Va., Norton.—Wise county receives bids Sept. 18 to construct 4 bridges across Guest

of Trade, J. L. Boyd, Secy., negotiating relative to establishing brick and tile plant.

Tex., Port Arthur.—Bricks.—C. A. Curl, Brookhaven, Miss., contemplates establishing plant.

### COAL MINES AND COKE OVENS

Okla., McAlester.—McAlester Coal Co. inceptd. by J. G. Paterbaugh, C. H. Hightower and Jas. T. O'Leary.

Okla., Coalton.—Herron Coal Mining Co., capital \$20,000, inceptd. by W. F. Herron, W. P. Russell and George Arbaugh.

Okla., Williams.—Williams Coal Co., capital \$100, inceptd. by W. T. Henry, G. T. Williams and S. H. Abbott, Fort Smith, Ark.

Tenn., Knoxville.—Royal-Ten Coal Co., capital stock \$25,000, inceptd. by H. M. Johnson, H. S. Pless, Ben A. Morton and others.

W. Va., Bluefield.—Pocahontas Consolidated Collieries Co., Pocahontas, Va., will build steel tippie at Lick Branch, near Bluefield; capacity 3000 tons in 10 hours; cost \$65,000.

W. Va., Malden.—Economy Splint Coal Co., capital \$15,000, inceptd. by Joseph Moore, J. M. Harris and Fred Burdette, all of Charleston.

W. Va., Panther.—Panther Coal Co. inceptd. to develop coal mining lease; erect 50 miners' houses; address care of Lathrop Coal Co., 17 Battery Pl., New York.

W. Va., Panther.—Lathrop Coal Co. (general office, 17 Battery Pl., New York) let contract Pittsburgh Coal Washer Co., Pittsburgh, Pa., to build coal washer, and to John W. Boss, Bluefield, to erect 10 miners' houses; also erect 2 sawmills.

## PROPOSAL ADVERTISEMENTS

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### CONCRETE AND CEMENT PLANTS

Md., Union Bridge.—Portland Cement.—Tidewater Portland Cement Co. will add to electrical-drive equipment 3 15 H. P., 2 25 H. P. and 2 100 H. P. induction motors; awarded contract.

### COTTON COMPRESSES AND GINS

Ark., Scranton.—Scranton Ginning Co., J. H. Raper, Pres., purchased plant of A. P. Kincaid & Sons; capacity 60 bales per 24 hours. (Lately noted inceptd., capital stock \$5000.)

Miss., Evansville.—Evansville Gin Co., capital \$3500, inceptd. by Burch Williams, W. T. Brewer, W. J. Floyd and others.

Tex., Corsicana.—Farmers' Gin Co., capital stock \$10,000, inceptd. by W. R. Kenner, J. A. Thompson and J. M. Harper, Jr.

Tex., Grand Saline.—Standard Square Bale Compress Co., capital stock \$20,000, inceptd. by Mark Mayer, D. T. Alger, J. G. Alger and others.

### COTTONSEED-OIL MILLS

Tex., Beaumont.—Beaumont Cotton Oil Co., capital stock \$80,000, inceptd. by Joseph E. Carroll, L. F. Gilbert and L. P. McCord.

Tex., Dallas.—Planters' Cotton Oil Co. will install 150 K. V. A. alternating-current generator and a smaller 16 K. W. generator, 15 H. P. and 75 H. P. motors and switchboard; awarded contract.

### DRAINAGE SYSTEMS

Ark., Paragould.—St. Francis Drainage Dist., Clay and Greene counties, let contract A. V. Mills & Son, Paragould, for additional canal and levee construction; cost about \$90,000.

Fla., Kissimmee.—W. B. Harris and P. A. Vans Agnew are promoting formation of drainage district to include section south of Lake Hart in Orange South.

### ELECTRIC PLANTS

Ala., Anniston.—Alabama Power Co., Birmingham, Ala., will build substation; site 1 acres; equipment includes 3 2000 K. V. A. transformers; receive electricity from Jackson Shoals power plant, Gadsden steam plant and Lock 12, reducing current from 110,000 to 22,000 volts; cost \$125,000 to \$200,000.

Ala., Greensboro.—Greensboro Water & Light Co. (lately consolidated), E. P. Kimbrough, Pres., states now has water and light plant 1 mile from depot and ice plant at depot; will remove light plant to depot and install electric machinery for pumping water. (See Machinery Wanted.)

Fla., Newberry.—City voted bonds to purchase electric and water plants in course of erection. Address The Mayor.

Ga., Augusta.—City considering constructing electric-light plant; T. W. Pilcher, R. E. Allen and others appointed committee.

Ky., Dawson Springs.—New Century Hotel Co., F. M. Fisher, Pres., Paducah, Ky., will receive estimates on installing electric-light plant; cost \$7500. (See Machinery Wanted.)

Ky., Pineville.—M. B. James, Charleston, W. Va., representing Eastern capitalists, is reported as to construct central power plant to furnish electricity to coal mines within 20-mi. radius of Pineville; has established temporary offices at Middlesboro.

La., Marksville.—City let contract C. A. Reese, Shreveport, La., at \$23,500 to construct electric-light and water plants; T. T. Fields, Mayor. (Lately noted.)

Md., Easton.—City granted franchise for construction and operation of new electric plant; Martin M. Higgins, Mayor.

Mo., Jefferson City.—State Capitol Com., J. Kelly Pool, Secy., let contract A. Anderson & Co., St. Louis, at \$12,495 to construct power-house and tunnel at State Capitol building; Tracy & Swartwout, Architects, 244 Fifth Ave., New York. (Lately noted.)

Mo., Kearney.—Kearney Electric Light Co., capital \$5000, inceptd. by Thos. H. Henderson, Lee Major and John A. Eby.

N. C., Fairmont.—Fairmont Light & Power Co., capital \$50,000, incorporated by A. L. Jones, E. V. McDaniel, L. E. Ricks and others.

Okla., Valliant.—City defeated bonds to construct electric-light plant. (Previously noted.)

Okla., Locust Grove.—Cherokee Light & Fuel Co., capital \$15,000, inceptd. by E. E. Atherton, J. M. Conner and E. R. Wilson, all of Tulsa.

S. C., Georgetown.—Georgetown Gas & Electric Co. has plans to construct electric power-house and gas plant; plans, etc., upon application to Bachman & Co., 624 Stock Exchange Bldg., Philadelphia, Pa., who control company and invite bids; lately noted incorporated, etc. (See Machinery Wanted.)

Tex., Beeville.—Beeville Power & Light Co., capital stock \$150,000, inceptd. by T. W. Robertson, A. H. Murris and C. M. Chambers.

Tex., Eagle Pass.—International Electric Co. will construct electrical transmission line to 2 irrigation pumping plants, 9 and 15 mi., respectively, from Eagle Pass; also expect \$55,000 on plant to enable it to furnish additional power. (See Irrigation Systems.)

Tex., Longview.—City will construct electric-light plant, etc.; bids received until October 8; A. Bodenheimer, Mayor. (See Waterworks.)

Tex., Sulphur Springs.—B. F. Ashcroft & Sons, owners electric-light system, will build electric-light and power plant; contemplate purchasing two 150 K. W. 2200-volt 3-phase 60-cycle generators (directly connected type); also engines, water-tube boilers and switchboard.

Tex., Wellington.—Wellington Power & Light Co., Joe S. Godwin, Secy.-Treas., advises will develop within 100 H. P.; plant (under construction) to cost \$10,000; company own engineer; recently noted incorporated. (See Machinery Wanted.)

Va., Pennington Gap.—Kentucky Utilities Co., Winchester, Ky., purchased power plant near Pennington Gap.

W. Va., Bluestone Junction (not a P. O.). Gibbs & Hill, Pennsylvania Terminal Bldg., New York, Engrs. for Norfolk & Western Ry. Co.'s previously-detailed electric plant, wire Manufacturers Record: "Contract for Bluestone power-house building awarded to C. W. Hancock & Sons, Lynchburg, Va."

River: Standard 70-ft. span, 1 1/2 mi. from Norton; steel 70-ft. span, 1 27-ft. span, 2 mi. from Norton; 80-ft. span, 2 1/2 mi. from Norton; 100-ft. steel span, 2 mi. from Coeburn; all concrete substructure; P. St. J. Wilson, State Highway Commr., Richmond. (See Machinery Wanted.)

Va., Powhatan.—Powhatan county will construct bridge across Jones Creek; bids received until Sept. 22; further information on application to P. St. J. Wilson, State Highway Commr., Richmond. (See Machinery Wanted.)

W. Va., Ceredo.—Town contemplates voting on \$4500 bonds to build iron bridge across Jordan's Creek. Address Town Clerk.

W. Va., Fikins.—Randolph County Comrs. considering building bridge across Tygart's Valley River.

### CANNING AND PACKING PLANTS

Ala., Dawes.—Dawes Cane & Canning Co., capital stock \$4000, inceptd. by E. M. Donner, E. A. Knapp, C. E. Herrisberger and others.

Fla., Pensacola.—A. T. Barkdull will erect cannery and creamery; 100x80 ft.; ordinary construction; pine or cypress shingle roof; cost \$2000; cost of machinery \$5000; recently noted contemplating organizing company with \$16,000 capital stock. (See Machinery Wanted.)

Tenn., Dayton.—Company inceptd. with \$15,000 capital stock to establish cannery; W. H. Rodgers, Pres.; W. A. Sherman, Gen. Mgr.

Va., Gate City.—McConnell & Droke contemplate establishing cannery.

### CLAYWORKING PLANTS

La., Natchitoches.—Company organized with \$50,000 capital; purchased Grand Ecote Cotton Oil Co.'s plant; will operate; Morris Aaron, Pres.; E. O. Payne, V-P.; A. W. Watson, Secy.-Treas.; J. W. Freeman, Mgr.

Tex., Port Arthur.—Brick and Tile.—Board



building to be of type and size advised you previously."

W. Va., Logan.—Logan Lighting Co., capital \$200,000, inceptd. by Henry C. Finkel (1406 G St. N. W.), Gillbank Twigg and others, all of Washington, D. C.

### FERTILIZER FACTORIES

Va., Richmond.—Palmetto Guano Co., 118 Mutual Bldg., capital \$50,000, chartered; Geo. Cole Scott, Pres.; Thos. B. Scott, V.-P.; Iredell Jones, Jr., Secy.-Treas.; mfrs. fertilizer.

### FLOUR, FEED AND MEAL MILLS

Mo., Webb City.—Athletic Mill Co. will rebuild plant burned at \$20,000 loss.

N. C., Cedar Grove.—Cedar Grove Milling Co., capital \$10,000, inceptd. by C. M. Hughes, Chas. A. McDade, R. C. Patton and others.

Va., Graham.—G. M. Barger and others will build mill; daily capacity, 100 bbls.

### FOUNDRY AND MACHINE PLANTS

Fla., Miami.—Plows.—J. S. Wentworth promoting organization of company to establish implement factory.

Ky., Louisville.—Hydro-electric Motors.—National Power Co., W. W. Wallace, Pres., Birmingham, Ala., will mfr. hydro-electric water current motor for developing water-power; plans to build works costing \$500,000; remote offices to Louisville; S. F. Crellius, City Engr., Louisville, is interested. (Lately noted under Water-power Developments.)

Md., Hagerstown.—Bottle Capping Machines, etc.—Rupp Mfg. Co., capital \$20,000, inceptd. by Rob. M. Rupp, Orin F. Baltzley and Edgar S. Darner.

Mo., St. Louis.—Foundry.—Commercial Foundry Co., Alabama and Primm Sts., organized; Wm. Botts, Pres.; Otto Schrodl, V.-P.; F. P. Gibbs, Secy.; Chas. O'Loughlin, Treas.; erect 108x108 ft. building; fireproof; cost \$7000; construction by company; Mr. Botts, Archt.; machinery electrically operated; cost \$2500. (Recently noted incorporated, \$25,000 capital.)

Tenn., Nashville.—Furnaces, Grates, etc.—Old Sol Hot Air Furnace Co. organized with J. D. Tipton, Pres.; A. J. Witt, V.-P., and Treas.; H. M. Sawrie, Secy.; hot-air furnaces, grates, mantels, etc. (Lately noted inceptd., capital \$10,000.)

Tex., Houston.—Engines and Pumps.—Southern Engine & Pump Co., capital stock \$10,000, inceptd. by C. W. Marlin, C. A. Levens and W. R. St. John.

### GAS AND OIL ENTERPRISES

Ala., Birmingham.—Empire Oil Co., capital stock \$500, inceptd.; A. C. DeShazo, Pres. and Gen. Mgr.; J. B. Lawton, V.-P.; G. C. Stacey, Secy.; J. D. Dahney, Jr., Treas.

Ala., Birmingham.—Cedar Crest Oil Co., capital stock \$50,000, inceptd.; C. C. Nesmith, Pres.; Chas. Pantaze, V.-P.; John L. Parker, Secy.-Treas.

La., New Orleans.—Burglass Oil & Mineral Co., capital stock \$500, inceptd.; Abraham Burglass, Pres.; Edw. Walsdorf and W. P. Flower, V.-Ps.; F. H. Lande, Treas.; R. W. Gilles, Secy.

La., Ruston.—Ruston Oil & Fuel Co. will construct system to pipe gas to fuel.

La., Shreveport.—Mineral Wells Oil & Gas Co., capital \$75,000, inceptd.; H. N. Forst, Pres.; O. H. Taylor, Secy.-Treas.

La., Shreveport.—Independent Oil & Gas Co., capital \$250,000, organized; C. L. Smith, Pres.; Beaumont, Tex.; T. C. Wingate, Treas., Leesville, La.; S. F. McConico, Secy., Beaumont.

N. C., Gastonia.—Gas Plant.—Gastonia County Gas Co. has plans and specifications to construct gas generating house; plans, etc., upon application to Bachman & Co., 624 Stock Exchange Bldg., Philadelphia, Pa., who control company and invite bids; lately noted inceptd., etc. (See Machinery Wanted.)

Okla., Ardmore.—John Ringling, Chicago, and others acquired 20,000 acres oil lands and will develop.

Okla., Madill.—A. Keltner Oil & Gas Co., capital \$500, inceptd. by E. S. Hurt, Geo. E. Rider and J. A. Keltner.

Okla., Okmulgee.—Sheldon Oil Co., capital \$50,000, inceptd. by N. D. Jones and Fred M. Carter, Okmulgee; G. W. Logan, Denver, Col.

Okla., Oklahoma City.—Campbell-Mohler Oil & Gas Co., capital \$25,000, inceptd. by G. C. Moore, W. J. Wallace, J. W. Steele and Abe Steinberger.

Okla., Oklahoma City.—Giant Oil & Gas

Co., capital \$100,000, inceptd. by H. M. McQueen, Oklahoma City; A. G. Robberson and Rob C. Whitten, Loco, Okla.

Okla., Oklahoma City.—Oklahoma City Merchants' Oil & Gas Co., capital \$15,000, inceptd. by W. H. Crane, W. G. Johnston, M. W. White and others.

Okla., Okmulgee.—Rennells Drilling Co., capital \$200, inceptd. by John Grove, Lee A. Voorhees and W. B. Rennells.

Okla., Oklahoma City.—Wright-McGill Oil & Gas Co., capital \$10,000, inceptd. by Frank V. Wright and H. R. McGill of Oklahoma City and H. G. Beard, Sapulpa, Okla.

Okla., Okmulgee.—Roger Silver Oil & Gas Co., capital stock \$500, inceptd. by John D. Curtis and Wm. Thomason, Okmulgee; Ernest E. Silver, Paul R. Gibson and Thos. S. S. Kerr, Chicago.

Okla., Pryor.—Archer Oil Co., capital \$10,000, incorporated by J. E. Bristow, J. C. Anderson and F. W. Brejcha.

Okla., Sapulpa.—Mart-Oklahoma Oil Co., capital \$50,000, inceptd. by S. H. Dickinson, Sapulpa; E. P. Fitzpatrick and Clint. C. Steinberger, Oklahoma City.

Okla., Sapulpa.—Wright Drilling Co., capital \$300, inceptd. by A. C. Stiles and C. C. Peters, Sapulpa, and J. H. Wright, Kellyville, Okla.

Okla., Stilwell.—Stilwell Oil, Gas & Development Co., capital \$10,000, inceptd. by B. T. Collins, Percival Adams, J. N. Hill and others.

Okla., Tulsa.—Calvin Oil Co., capital \$25,000, inceptd. by W. C. Guiler, C. E. Deloe, H. E. Smith and others.

Okla., Tulsa.—Bird Creek Oil & Gas Co., capital \$75,000, inceptd. by C. W. Denning and H. J. Rickabaugh of Tulsa and W. H. Hoover of Pikesburg, Miss.

Okla., Tulsa.—Erney Oil & Gas Co., capital \$10,000, inceptd. by F. B. Berlin, Tulsa; John Henry, Carmen, Okla.; E. C. Erney, Erie, Kans.

Okla., Tulsa.—Chicago Oil Products Co., capital \$15,000, inceptd. by John M. Chick, Benj. C. Conner and W. J. McKay.

S. C., Georgetown.—Gas Plant, etc.—Georgetown Gas & Electric Co. has plans to construct gas and electric power-house; plans, etc., upon application to Bachman & Co., 624 Stock Exchange Bldg., Philadelphia, Pa., who control company and invite bids; lately noted inceptd., etc. (See Machinery Wanted.)

Tenn., Dickson County.—V. A. Smith, Indianapolis, advises that Indiana-Tennessee Oil & Gas Co., 602 Merchants' Bank Bldg., Indianapolis, Ind., is developing oil and gas field; V. A. and Gortley Smith, geologists. (Company — not named — recently noted inceptd., \$100,000 capital stock, by Mr. Smith and others, all of Indianapolis; leased 25,000 to 30,000 acres in Dickson, Cheatham, Williamson, Stewart and Montgomery counties.)

Tex., El Paso.—Gas Plant.—El Paso Gas Co., capital stock \$1,300,000, inceptd. by Knowles Pittman and others.

Tex., Waco.—G. W. Stough, Kansas City, Mo., petitioned City Commrs. for franchise to supply natural gas; propose building pipe line from Mexico to Waco, 42 mi.

W. Va., Arroyo, R. F. D. from New Cumberland.—Gasoline Plant.—Acme Gasoline Co., capital \$10,000, inceptd. by Wm. O'Brien, D. E. Cusack and C. E. Brennenman, all of New Cumberland, and others.

W. Va., Harrisville.—Gasoline.—Chas. S. Beardslee, Cleveland, O., will build gasoline plant; purchased 2 H. P. direct driven compressors.

### ICE AND COLD-STORAGE PLANTS

Ala., Greensboro.—Greensboro Water & Light Co., E. P. Kimbrough, Pres., recently noted consolidated with Greensboro Ice Co., will operate established ice plant. (See Electric Plants.)

Ky., Catlettsburg.—Larry Cab. Clarksburg, W. Va., will build cold-storage warehouse.

Ky., Franklin.—Franklin Electric & Ice Co. contemplates enlarging plant.

Ky., Maysville.—Maysville Ice Co. having plans prepared to enlarge plant; erect brick storage annex; 12x66 ft.; 32 ft. high; brick and concrete; increase daily capacity to 10 tons; cost \$20,000. (Lately noted.)

Mo., Burlington Junction.—Lon Monk and T. E. Fordyce will install ice plant.

Mo., Chauncey.—S. W. Crall contemplates building ice plant.

N. C., Lexington.—Lexington Ice & Coal Co. organized with T. S. Eanes, Pres., and T. M. Hines, Secy.-Treas., latter of Salisbury; will establish 15-ton ice plant.

Okla., Dewey.—McClintock, Low & Letson,

Bartlesville, Okla., will establish 25-ton ice plant; let contract Pillsbury-Becker Engr. & Suppl. Co., St. Louis, to construct plant and install ice machinery complete, including 2 72 in. x 18 ft. 159-lb. pressure boilers burning either gas or coal; also erect ice-storage house.

Tex., Blodgett, R. F. D. from Leesburg.—W. M. Irwin Ice Co., W. M. Irwin, Mgr., Houston, will build 100-ton ice plant near Blodgett.

Tex., Dallas.—Texas Ice & Cold Storage Co. will build ice and cold-storage plant; 1 story; brick; cost \$2000.

Va., Cape Charles.—Heckle & Kellogg will enlarge ice plant; propose installing 100-ton refrigerating machine.

### IRRIGATION SYSTEMS

Tex., Eagle Pass.—Indio Cattle Co. will install 100 H. P. pump to deliver 3000 gals. water per min. to irrigate 1000 acres 16 mi. from Eagle Pass; contracted with International Electric Co. to furnish electricity. (See Electric Plants.)

Tex., Eagle Pass.—Rio Grande Valley Land Co. will install 150 H. P. pump to deliver 5000 gals. water per min. to irrigate 1500 acres 9 mi. from Eagle Pass; contracted with International Electric Co. to furnish electricity. (See Electric Plants.)

### IRON AND STEEL PLANTS

Ala., Mobile.—Steel Plant.—Southern Steel Co., capitalization \$30,000,000, being organized by C. V. Mead of Denver, Pres., Interlocking Rail & Structural Steel Co. of Denver and Chicago; J. F. Barnhill of Chicago, Engr., Interlocking corporation; L. C. Davis of Chicago, Consult. Engr. of company; A. G. Wood of New York; Rupert Fry of Milwaukee, Pres., Old Line Life Insurance Co., and other capitalists; build plant on river front; purchased 8000 acres; 50 acres for buildings and machinery, investment \$5,000,000; daily capacity, 1000 tons, etc.; plant in two units, 500 tons each; awarded contracts for clearing land preparatory to constructing plant and building industrial city. Mr. Barnhill wires Manufacturers Record: "Steel mill initial capacity, 1000 tons per day, with facilities for gradual increase; plant, with by-product coke ovens with capacity 1000 tons per day, cost approximately \$7,000,000." Mr. Mead writes to Manufacturers Record confirming foregoing reports and including other facts, such as: Acquired 500,000 acres timber land in Cuba, including deposits iron ore; will mine ore for shipment to Mobile plant; town to be called New Mobile; in addition to general steel and iron products, will manufacture steel rails and structural steel with interlocking joints; patents owned by Interlocking company.

W. Va., Benwood.—Iron Furnace.—National Tube Co. (general offices, Erie Bldg., Pittsburgh, Pa.) will, it is reported, relne furnace B of Riverside plant.

### LAND DEVELOPMENTS

Ala., Birmingham.—Hudson Improvement Co., capital stock \$10,000, inceptd.; W. J. Hudson, Pres., Mobile; M. E. Hodge, Secy.; B. B. Hudson, Treas.; both of Birmingham.

Ark., Bradley.—Bradley Improvement Co., capital \$2000, inceptd.; J. F. Knight, Pres.; J. W. Knight, V.-P.; C. B. Lockhart, Secy.-Treas.

Fla., Jacksonville.—E. McDonald of Jacksonville; J. F. C. Griggs, Apalachicola, and Henry Hayes Lewis, Marianna, purchased 50 acres; will further improve and develop, extend water mains, etc.

Fla., Jacksonville.—Co-operative Realty Co., capital \$10,000, inceptd.; J. C. Leman, Pres.; R. W. Harrison, V.-P.; F. W. Jenkins, Secy.; J. W. Tanner, Treas.

Fla., Tampa.—Lee-Washington Fruit Co., capital stock \$10,000, inceptd.; J. A. Washington, Pres., Largo, Fla.; B. F. Borchardt, V.-P.; W. E. Lee, Secy.-Treas., both of Tampa.

Fla., Tarpon Springs.—Welch Development Co., 461 Central Ave., St. Petersburg, Fla., organized with A. R. Welch, Pres.; J. F. Harrison, V.-P.; A. E. Welch, Secy.-Treas.; develop 25 acres by day labor. (Lately noted organized, \$100,000 capital, to build seawall, construct streets, etc.)

Fla., Toca (not a P. O.).—Alfred Burbank, Santa Rosa, Cal., will, it is reported, develop 1000-acre experimental farm in Western St. John county.

Md., Frederick.—G. Milton Thomas and J. Holton Sweeney, Hagerstown, Md., contem-plate organizing company with \$10,000 capital to purchase and develop as resort Dahlgren estate on South Mountain, comprising 170 acres; has 23-room residence; proposed to remodel as hotel.

N. C., Gastonia.—Riverside Farm, capital \$100,000, inceptd.; W. T. Rankin, Pres.; G. M. Gullick, V.-P.; R. G. Rankin, Secy.; develop about 3500 acres in Gaston and York counties; farming and stock-raising.

N. C., Greensboro.—Southside Development Co. organized; A. T. Fortune, Pres.; H. E. Wootton, V.-P.; W. G. Tennille, Secy.-Treas.; develop 105 acres, South Greensboro, partly within corporate limits; residential; construct streets and park. (Lately noted incorporated, \$30,000 capital stock.)

S. C., Sumter.—Carolina Land Co., Nell O'Donnell, Pres., organized to take over 400 acres formerly owned by Sumter Land Co.; partly within city limits; character of developments not decided. (Lately noted inceptd., capital \$40,000.)

Tenn., Knoxville.—University Place Land Co. organized with H. Woodward Pres., R. E. Folk Treas.; develop about 45 acres, residential, W. Knoxville; parkways, graded streets, sidewalks, sewers, gas and electricity; 80,000 yds. dirt to be moved; improvements to cost \$75,000; Gustav Bottiger, Engr. (Lately noted inceptd., capital \$100,000.)

Tex., Beaumont.—City Council appropriated \$10,000 to improve Island Park, comprising 60 acres; plans provide for levee around 20 acres, lake, etc.; Emmett A. Fletcher, Mayor.

Tex., Brownsville.—Rio Grande Valley Development Co., capital stock \$50,000, inceptd. by A. J. McColl, H. E. Best and J. E. Couch.

Va., Emory.—Emory Land Co., capital \$25,000, incorporated; M. H. Honaker, Pres., Abingdon, Va.; R. K. Sutherland, Secy.-Treas., Emory.

Tex., Hillsboro.—Hillsboro Development Co., capital stock \$500, inceptd. by F. E. Carter, Geo. F. Sturgis and G. J. Carter.

Tex., Midland.—Midland Farms Co., capital stock \$300,000, inceptd. by W. A. Coon, W. M. Short and S. H. Caney.

Va., Norfolk.—Morris Realty Corp., capital \$10,000, chartered; A. J. Morris, Pres.; Marion Morris, Secy.

Va., Richmond.—Roland Park Corp. purchased 27½ acres; will divide into building lots.

Va., Roanoke.—Hutchison & Hancock, 612 First National Bank Bldg., Roanoke, are enrgs. for capitalists proposing to develop Signal Knob as all-the-year-around resort, and state as follows: Developments in formative stage; owners hold meeting about Sept. 15; propose build 20 or more miles automobile road; erect one or more tourist hotels; park large area; install water, sewer and light systems.

W. Va., Romney.—Indian Spring Orchard Co., capital stock \$10,000, inceptd. by Campbell Panake, Eliza H. Panake, J. S. Zimmerman and others.

### LUMBER MANUFACTURING

Ala., Carrollton.—Delma Lumber Co. (Geo. M. Collins and H. H. Mobley), Gordo, Ala., contemplates erecting planing mill.

Ala., Baldwin County.—Jernigan Bros., Brawton, Ala., purchased timber rights on 17,000 acres timber land; will erect mill and charcoal kilns.

Ala., Prentice.—King Lumber Co. will rebuild burned drykilns, 40x100 ft. (Lately noted.)

Ark., Camden.—Southern Piling Co., Lock Drawer 462, organized with B. C. Powell, Pres.; N. V. Wright, Arkadelphia, Ark., V.-P.; J. E. Van Cleave, Secy., Treas. and Mgr.; machinery (skidders and loaders) ordered; mfrs piling, ties, light and telegraph poles.

Ark., Paragould.—Brown Lumber Co., capital \$25,000, inceptd. by H. W. Brown, John G. Meiser, T. H. Garrett and others.

Ky., Ashland.—Standard Planing Mill & Building Co. will rebuild burned plant.

La., Garden City.—Albert Hanson Lumber Co. reported to establish hardwood mill.

N. C., Clinton.—G. A. Walker & Co., capital \$10,000, incorporated by Geo. Walker, Lucy M. Walker and Henry A. Grady.

N. C., Elville.—Cardwell & Keger Lumber Co., North Wilkesboro, N. C., purchased 3 tracts timber land and will develop; portion of timber to be shipped in log to North Wilkesboro and sawed at mill under contract of erection.

Tex., Beaumont.—C. E. Slade, Orange, Tex., will build sawmill; daily capacity 25,000 ft.

W. Va., Huntington.—Cold Water Timber Co., capital \$15,000, inceptd. by S. J. Hyman, W. H. Cunningham, C. R. Conner and others.

W. Va., Hampshire County.—W. B. Corn-

well, Romney, W. Va., purchased 2150 acres timber land; plans building several sawmills and constructing railroad to timber.

### METAL-WORKING PLANTS

Ky., Louisville—Wire, etc.—Imperial Wire and Iron Works will build plant.

### MINING

Ala., Sylacauga—Onyx.—M. L. Smith contemplates developing onyx deposits.

Fla., Mulberry.—Export Phosphate Co., H. G. Lowe, Treas., Leonminster, Mass., let contract Savannah (Ga.) Engineering & Construction Co. to design and construct phosphate drying and storage plant in Polk county; reinforced concrete bin for wet rock; reinforced concrete dry-rock storage bin; steel-frame mill building; fireproof throughout; electrically operated. (Lately detailed.)

Ga., Cordele—Lime.—L. C. Arnold, 21 W. 13th Ave., contemplates development of lime and silica for building and agricultural purposes. (See Machinery Wanted.)

Mo., Joplin—Lead and Zinc.—United Iron Works acquired Hockett mining plant and will operate.

Mo., Kansas City—Zinc.—Kansas City Zinc Co., capital stock \$32,000, inceptd. by J. T. Robinson and Theodore C. Pelitzer, both of Kansas City; C. M. Stewart, Carthage, Mo., and others.

Mo., Nevada—Lead and Zinc.—Prime Western Smelter Co., capital stock \$50,000, inceptd. by L. A. Daly, L. H. Galloway, G. R. Godfrey and others.

Mo., Rocky Comfort—Trippol.—H. P. Lamberson contemplates developing trippol deposits.

N. C., China Grove—Kaolin, etc.—R. W. Gray of Gray Veneer & Panel Co. contemplates development of kaolin, siliceous or silica.

S. C., Abbeville—Gold.—Neel Mining Co. will develop 361 acres and several other gold tracts; recently noted organized, \$20,000 capital stock, by W. W. Bradley and others. (See Machinery Wanted.)

S. C., Paolet—Kaolinite, etc.—Baxter Geonoble is interested in proposed development of kaolinite or halloysite.

S. C., Paolet—Granite.—Paolet Granite Co., capital \$2000, incorporated by Jas. Stephen and Geo. E. Claxon.

Tenn., Erwin—Feldspar.—Cinchfield Mineral & Milling Co., 100 William St., New York, will make recently-noted developments; Chas. Ingram, Pres.; Henry A. Kaufman, V.-P. and Gen. Mgr.; Clement Cleveland, Jr., Sec.; machine orders placed.

Tenn., Knoxville—Marble.—Young Marble Co., capital \$10,000, inceptd. by R. F. Young, J. W. Culton, N. R. Williams and others.

Tex., Hillsboro—Ballast.—Southwest Ballast Co., capital stock \$12,000, inceptd. by J. G. Danson, William Willacy and W. A. Butler.

### MISCELLANEOUS CONSTRUCTION

Ala., Mobile—Coaling Station, Docks, etc.—Tidewater Securities Corp., J. M. Dewberry, Pres., Birmingham, bought Dauphin Island property and wires Manufacturers Record: "Purchase price Dauphin Island over \$300,000; average 2000; initial development, including railroad, water, lights and sewerage, \$500,000; to be immediately followed by port development, consisting of deep harbor, docks, warehouses and coaling station costing about \$2,000,000." Mr. Dewberry further advises that Tidewater Securities Corp. acts as holding corporation for: Birmingham & Tidewater Ry. Co. to construct 16-mile railroad from Birmingham to Warrior River; Tidewater Navigation Co., to operate boats on Warrior and Tombigbee Rivers to Mobile and Dauphin Island, 438 miles; Dauphin Island Railway & Harbor Co., to develop Dauphin Island as port, coaling station and terminal; Dauphin Island Land Co., to develop Dauphin Island as resort. (Dauphin Island development plans previously noted.)

Ala., Pass Aux Herons—Dredging.—Government will dredge channel connecting Mobile Bay and Mississippi Sound at Pass Aux Herons; bids received at U. S. Engrs. office, Mobile, until Oct. 7; R. T. Ward, Capt., Engrs. (See Machinery Wanted.)

D. C., Washington—Dredging.—Government will dredge in Virginia Channel, Potomac River; bids until Oct. 14 at U. S. Engr. Office, 305 Southern Bldg.; W. C. Langfitt, Lieut.-Col., Engrs. (See Machinery Wanted.)

Fla., Bradentown—Retaining Wall.—Comms. of Public Works, O. A. Spencer, member of com., will construct about 600 lin. ft. retaining wall Manatee St.; plans and specifications at City Clerk's

office; bids received until Sept. 18. (See Machinery Wanted.)

Fla., Manatee—Sea Wall.—City considering construction of sea wall and boulevard; 8000 ft. long; total filling in along river, 327,000 ft. sand; reclaim 55 acres; cost \$155,000, including walks, bridges and drains. Address The Mayor.

Fla., Plant City—Canal.—City will excavate Water Oak, South and West and Thomas Bay canals; bids until Sept. 27; W. L. Lowry, Clk. (See Machinery Wanted.)

Ga., Augusta—Levee.—Nisbet Wingfield, Ch. Engr. River and Canal Commission, 747 Broad St., states lately-noted \$200,000 loan will be used to continue contracts already let to about \$800,000; total cost of levee about \$1,500,000.

Ga., Savannah—Wharves.—City considering purchase of water-front property and erection of concrete wharves to cost \$30,000; Nisbet Wingfield, City Engr.

Ky., Hickman—Levee.—City votes in Nov. on \$15,000 bonds to build levee; total estimated cost \$42,000, to be paid jointly by city, Mengel Box Co. and 2 railroads. (Previously noted.)

Ky., Louisville.—Board Public Works let contract J. H. Cahill & Co., Louisville, at \$365,797.60 to straighten Beargrass Creek and construct concrete bed and retaining walls. (Call for bids lately noted.)

La., New Orleans—Levees.—State Engrs., 213 New Orleans Court Bldg., let following contracts: J. M. Sullivan, Bombon levee, Pontchartrain Dist.; Bourg & Serpass, protection to Southport levee, Pontchartrain Dist.; H. Hedberg & Co., Spur dike in Red River, Atchafalaya and Bayou Boeuf Dist. and St. Joseph's Church levee; Geo. R. Lacy, Gaines Landing levee; W. M. Rushing, Ben Ruth levee; Clinton Sayes, Schoolhouse South levee; Chas. J. Martin, Iron Mountain crossing to Hynson levee. (Call bids lately noted.)

La., New Orleans—Earthwork.—Mississippi River Com., 4th Dist., U. S. Engr. office, C. O. Sherrill, Capt., Engrs., will construct 195,000 cu. yds. earthwork in Atchafalaya, Lafourche, Barataria and Pontchartrain Levee Dist.; bids received until Sept. 19. (See Machinery Wanted.)

Md., Baltimore—Pier.—Canton Co., Commerce and Water Sts., will open bids Sept. 22 to construct concrete pier (for ocean steamers) 1000 ft. long and 150 ft. wide; bidders estimating include Sanford & Brooks Co., Commerce and Water Sts., and Chas. L. Stockhausen, National Marine Bank Bldg., both of Baltimore; Wells Bros. Co., 160 5th Ave.; John Monks & Son, 82 Beaver St., and Jas. Stewart & Co., 30 Church St., all of New York; Pennsylvania Steel Co., Morris Bldg., Philadelphia, and McClintic-Marshall Construction Co., Pittsburgh; Wilson Richardson, company's engineer, prepared plans. (Lately noted.)

Md., Howard County.—Edwin Warfield, Pres. Fidelity & Deposit Co., Fidelity Bldg., Baltimore, will establish game preserve of 140 acres on Oakdale farm; erect lodge building.

Mo., Caruthersville—Levee.—St. Francis Levee District, John Cunningham, Pres., will construct enlargement work on levee, about 4 miles yardage not yet estimated; cost \$75,000; to be contracted; date of opening bids not set; S. P. Reynolds, Engr.

N. C., Troy.—Troy Cross Arm Co. will construct canal about 1000 ft. long, 30 ft. wide; about 6000 cu. yds. earth removal; will let contract. (See Machinery Wanted.)

Tex., Port Arthur—Docks, etc.—City contemplates voting on \$200,000 bonds to erect docks and warehouses; plans ready 60 to 90 days. Address The Mayor.

### MISCELLANEOUS ENTERPRISES

Fla., Brooksville—Publishing.—Southern Argus will erect addition to plant; install typesetting machine.

Fla., Ft. Myers—Navigation.—Estero Navigation Co., capital \$10,000, inceptd. by H. E. Heitman, Ft. Myers; Wm. Wallace, Jr., and D. A. G. Flowerree, Jr., Helena, Mont., and others.

Fla., Jacksonville.—Central Bldg. Co., capital \$50,000, inceptd.; F. P. Lord, Pres.; Eugene Hale, V.-P.; E. H. Stewart, Secy.-Treas.

Ga., Atlanta—Laundry.—Excelsior Laundry will erect building; 3 stories and basement; cost \$33,000; site 60x140 ft.; mill construction; pressed brick; copper front; elevator; Morgan & Dillon, Archts.; Donaldson & Pleson, Contr.

Ga., Savannah—Dry Cleaning.—Mary Dry Cleaning Co. organized; will erect plant; purchased machinery; office 302 Bull St.;

John S. Banks, Pres.; Valmore W. Lebey, V.-P.; R. T. Waller, Jr., Secy.; E. W. Cubbedge, Jr., Treas.; J. J. Kline, Mgr.

La., Thibodaux—Grain Elevators.—Southern Pacific Co., Hiram W. Sheridan, Gen. Supt. Louisiana Lines, New Orleans, will, it is reported, build corn-shelling elevator.

Md., Baltimore—Printing.—Lucas Printing Co., 1101-1105 E. Fayette St., will erect 1-story addition, 54x106 ft.; Callis & Callis, Archts., Knickerbocker Bldg.; David F. Schmid, Contr., 1000 Rutland Ave.

N. C., Asheville—Incinerators.—City let contract Geo. J. Meade, Ch. Engr. Dixon Incinerator Co., Toledo, O., to build incinerator. (Lately noted.)

N. C., Raeford—Publishing.—Raeford Publishing Co., capital \$10,000, inceptd. by J. W. Johnson, Blon H. Butler, T. B. Upchurch and others.

N. C., Southport—Laundry.—Cape Fear Laundry & Mfg. Co. inceptd.; J. J. Knox, Pres.; F. P. Crockett, V.-P.; J. S. Craig, Secy.-Treas.

N. C., Wilmington.—Hopkins Sons & Co. inceptd. by J. J. Hopkins, C. S. Hopkins and D. N. Chadwick, Jr.

Okla., Durant—Incinerator.—City will construct 10-ton garbage incinerator; Benham Engineering Co., Consult. Engr., 435 American National Bank Bldg., Oklahoma City; W. P. Danford, City Engr.; bids received until Sept. 30. (See Machinery Wanted.)

Okla., New Salina, P. O. at Salina—Bottling.—Bromo-Magnetic Springs Co., capital \$5000, inceptd. by Ed C. Cassidy, J. E. Gilmore, Irwin Ingraham and J. L. Wharton.

S. C., Anderson—Publishing.—Anderson Intelligence, capital \$20,000, inceptd. by M. M. Mattison, W. W. Sullivan, M. L. Bonham and others.

S. C., Charleston—Publishing.—Southern Drainage and Good Roads Magazine Co., 503 People's Office Bldg., organized with John McCrady, Pres.; W. S. McCrady, V.-P.; H. C. Cheves, Jr., Secy.-Treas.; Harry C. Boggs, managing editor; publish monthly magazine. (Lately noted inceptd., \$2000 capital stock.)

S. C., Darlington—Construction.—Jefferson Construction Co., capital \$5000, inceptd.; Charles Gibbons, Pres.; Geo. E. Dargan, V.-P.; M. W. Nicholson, Secy.-Treas.

S. C., Manning—Publishing.—Herald Publishing Co., capital \$5000, inceptd. by A. H. Breedin and J. K. Breedin.

Tenn., Nashville—Construction.—Rock City Construction Co., G. B. Howard, Pres., advises has not secured permanent offices; temporary address, 705 First National Bank Bldg.; conduct general construction. (Recently noted incorporated, capital stock \$10,000.)

Tex., Dallas—Laundries.—City and County Comms. considering installation of laundries at Partland, Union and Tuberculosis Hospitals; propose erect brick buildings and equip with cleansing and disinfecting or sterilizing apparatus; Harry J. Emmins, Bldg. Insp., prepared plans and estimates.

Tex., Houston—Engraving.—Star Engraving Co. increased capital stock from \$9000 to \$15,000.

Tex., Texas City—Contracting.—Texas Contracting Co., capital stock \$5000, inceptd. by Thomas Phillips, Ben Phillips and M. H. Morrissey.

W. Va., Logan—Laundry.—Model Laundry & Dry Cleaning Co., capital \$20,000, inceptd. by F. S. Martin, O. L. Gilbreath, J. G. Gault, A. L. Power and others, all of Holden, W. Va.

### MISCELLANEOUS FACTORIES

Ala., Birmingham—Paint.—Huffman Salvor Roofing Paint Co. plans increasing capital stock from \$25,000 to \$150,000.

Ala., Gadsden—Paper.—Alabama Pulp & Paper Co., capital stock \$1,000,000, organizing to build pulp and paper mills; daily capacity, 60,000 lbs. paper; names of organizers not announced.

Ala., Geneva—Turpentine, etc.—Geo. A. Grindley, Chicago, purchased 10-acre tract; organizing company to establish plant to manufacture turpentine, rosin, tar, charcoal, etc.; capacity, 16 cords wood daily; T. A. Dungan and F. W. Watts, also of Chicago, interested; Mr. Watts will supervise construction of plant.

D. C., Washington—Elevator Appliance.—National Elevator Safety Service Co., capital stock \$20,000, inceptd. by Byron S. Adams (512 11th St. N. W.), Wm. E. Ambrose, Carl H. Claudey and others.

Fla., Jacksonville—Broom Grass.—Spanish Rush Broom Co., 506 Consolidated Bldg., organized with W. F. Holmes, Pres.; H. M.

Wilson, V.-P. and Mgr.; A. Y. Milam, Secy.; John C. Powell, Treas.; has sheds and dry-kilns erected on Pablo Creek marsh; will produce marsh grass (substitute for broom corn); daily capacity about 5 tons. (Recently noted incorporated, capital stock \$50,000.)

Fla., Pensacola—Creamery, etc.—A. T. Barkdull will erect creamery, etc., recently noted. (See Canning and Packing Plants and Machinery Wanted.)

Fla., Punta Gorda—Cigars.—Punta Gorda Cigar Mfg. Co. increased capital stock; erecting 3-story factory building costing \$3500.

Ga., Augusta—Automobile Tires.—Southern Tire & Rubber Co. organized with Weems A. Smith, Pres.; H. S. Dunbar, V.-P.; Jas. P. Armstrong, Secy.-Treas.; machinery purchased.

Ky., Louisville—Candy.—Komstohk Candy Co., capital stock \$5000, inceptd. by H. K. Miller, Louisville; T. H. Komstohk and W. C. Komstohk of Indianapolis, Ind.

La Belle Helene—Sugar.—Belle Helene Cooperative Co., capital stock \$50,000; lease and operate Belle Helene sugar factory in Ascension parish; Jos. Staring, Pres.; C. D. Gondram, V.-P.; A. I. Picard, Secy.-Treas.

La., Shreveport—Brooms.—North Louisiana Broom Factory, F. D. Bickham, Pres., leased buildings; improve and equip as broom factory; ultimate daily capacity, 50 doz.; initial, 30 doz.

Md., Baltimore—Optical Goods.—Baltimore Optical Co., Clay and Liberty Sts., will erect plant at 230-232 W. Saratoga St.; 6 stories; brick; concrete foundation; slag roof; elevators; iron, steel and sheet-metal work; steam heat; electric light; Haskell & Barnes, Archts., 301 N. Charles St.

Md., Baltimore—Children's Dresses.—Hamberger-Bonday Co. leased 5th floor 227 W. Baltimore St. and will equip to mfr. children's dresses.

Md., Frederick—Bakery.—G. L. Baking Co. increased capital stock from \$10,000 to \$20,000.

Mo., Joplin—Shoes.—Hamilton-Brown Shoe Co., St. Louis, will not establish plant at Joplin. (Recent report incorrect.)

Mo., Kansas City—Clothing.—Kahn Clothing Co., capital stock \$30,000, inceptd. by Albert Kahn, Mose Goldberg and Lily Kahn.

Mo., North Kansas City—Clothing.—Joslyn Mfg. & Supply Co., Chicago, will establish plant; purchased site 450 ft. long.

Mo., St. Louis—Blowers, Fans, etc.—Perfection Blower Co., capital stock \$15,250, inceptd. by Christian Neumann, Henry J. Sailer, Emil Schray and others.

N. C., Raleigh—Bottling.—W. E. Wellington and others will build bottling plant.

Okla., Hugo—Cigars.—Ables Cigar Mfg. Co. organized with J. W. Dawley, Pres.; W. E. Schooler, V.-P.; James DeWitt Ables, Secy., Treas. and Mgr.; mfr. cigars. (Lately noted incorporated, capital \$10,000.)

Okla., Hugo—Chemicals.—Electric Chemical Co., capital \$25,000, inceptd. by J. J. McIntyre and F. D. Copping of Hugo, and J. T. Crow, Antlers, Okla.

Okla., Oklahoma City—Medicinal.—Indian Foot Ease Co., capital \$3000, inceptd. by Jefferson C. Smith, Zelma Smith and Chas. F. Heldbrink.

S. C., Columbia—Shirts.—J. J. DeGuenether & Co. will establish shirt factory; occupy basement Union National Bank Bldg.; later will mfr. overalls and underwear.

S. C., Columbia—Edward Lateral Plate Co., capital \$1000, inceptd. by Jas. R. Edwards and Leon Renault.

Tex., El Paso—Feathers.—Southwestern Ostrich Farm contemplates establishing feather factory and dyeing plant.

Tex., Port Arthur—Bakery.—A. S. Achee leased building at 532 Austin Ave. and will equip as bakery; erect brick addition for steam ovens.

Va., Norfolk—Bakery.—Adams' Baking Co. increased capital from \$15,000 to \$50,000.

Va., Richmond—Peanuts.—Aragon Peanut Mills, capital \$50,000, inceptd.; J. W. Harrison, Pres.; W. J. Sunrow, Secy.-Treas.

Va., Richmond—Vinegar.—Richmond Vinegar Co., 1210 E. Cary St., organized with W. P. Winstead, Pres.; Agnes Winstead, V.-P.; R. W. Braswell, Secy.-Treas.; Fred F. Braswell, Mgr. (Officers incorrectly noted in recent item.)

Va., Suffolk—Specialties.—A. A. V. Specialty Co., capital \$10,000, inceptd.; A. C. Nurney, Pres.; H. W. Phillips, Secy.



W. Va., Dunbar, P. O. Charleston—Enamelling.—Fletcher Enamel Co., U. S. Fletcher, Prest. and Mgr., Anderson, Ind., receiving proposals to erect 260x260-ft. building costing within \$40,000; steel construction in roof; concrete walls; steel sash windows; install machinery costing within \$50,000; mfrs. stamped enameled ware; use natural gas. (Lately noted under Charleston.)

W. Va., Peterstown—Creamery.—Monroe Creamery Co., capital \$10,000, incorporated by E. I. Terry, W. H. Ballard, M. L. Shue and others.

### MOTORS AND GARAGES

La., New Orleans—Garage.—Wm. Nolan will build garage; pressed brick, stucco and tiled roofing.

N. C., Statesville—Garage.—Carolina Motor Co., capital \$25,000, inceptd. by S. B. Miller, G. L. McKnight and H. H. Yount.

N. C., Wadesboro—Garage.—Blalock Hardware Co. will erect brick garage; 70-ft. front; 100 or 125-ft. depth; glass front; estimated cost \$5000; install electric motor and all necessary equipment; contract not let; probably begin construction within 60 days. (Lately noted.)

S. C., Darlington—Automobiles.—Cash Automobile Co., capital stock \$100, inceptd. by C. C. Vaughan, G. B. Brasington and J. B. Blackwell.

S. C., Orangeburg—Garage.—J. A. Berry will erect 50x100 ft. garage. (See Machinery Wanted.)

Tenn., Nashville—Chester Motor Car Co. let following contracts for garage: Woodwork, J. W. Patrick; brick work, E. T. Lewis Company; excavation and foundation, James Lightman; concrete floor and roofing, Uncle Hiram Roofing Co., all of Nashville; C. A. Ferguson, Archt. (Lately noted.)

Tex., Houston—Garage.—Jesse H. Jones will erect garage and hotel; cost \$50,000. (See Hotels.)

Va., Richmond—Automobiles.—Henderson Motor Car Co., capital \$25,000, inceptd. by J. H. Harding, Prest.; L. Casselman, Jr., Secy.-Treas.

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Mo., Kansas City—Kansas City Terminal Co., John V. Hanna, Ch. Engr., let contract Gale Installation Co., Chicago, to erect roundhouse; 16 stalls; cost \$35,000. (Lately noted.)

### ROAD AND STREET WORK

Ala., Hayleyville—Winston County Commissioners Court will grade, drain and surface with sand-clay or gravel part of Hayleyville and Double Springs Rd.; expenditure \$8000; W. S. Keller, State Highway Engr., Montgomery; bids until Oct. 1. (See Machinery Wanted.)

Ala., Lafayette—Chambers County Court will grade 2.75 mi. Marcott Rd. from Tramwells x-road to Tillers x-road; expenditure \$6000; W. S. Keller, State Highway Engr., Montgomery; bids until Oct. 1. (See Machinery Wanted.)

Ala., Montgomery—Board of Revenue will grade and gravel about 4 mi. Merriwether Rd. from Matthews Station to Pike Rd.; bids until Sept. 29; Thomas H. Edwards, County Engr. (See Machinery Wanted.)

Ala., Tuscaloosa—City will pave University Ave. from Thomas St. to Eastern city limits. Address City Commrs.

Ark., Mountainburg—Geo. G. Stockard interested in building 40 mi. automobile and wagon road from Fort Smith to Winslow; construction by labor along route; also construct two 125-ft. steel bridges.

Ark., Texarkana—Texarkana-Ashdown Highway Committee, F. P. Quinn, Secy., will construct 20 mi. dirt and gravel road; cost \$7500. (Recently noted.)

Fla., DeLand—Volusia county will build 70 mi. road, one to extend from Daytona to St. Johns River, 35 mi. Address County Commrs.

Fla., St. Augustine—St. John County Commrs. let contract Robert Hamilton, St. Augustine, to pave with shell 2 mi. on Deen Rd.

Fla., Tampa—City will pave Eighth Ave. from 22d to 24th St. Address The Mayor.

Ga., Albany—City will pave North St.; R. J. Edgerly, City Engr.

Ga., Savannah—Chatham county will pave 1 mi. Dale Ave. with concrete. Harvey Granger, Chrmn. Roads Com.

La., Convent—Road Dist. No. 1, St. James parish, will vote on \$60,000 bonds to build roads. Address Dist. Commrs.

La., Floyd—Precincts Nos. 1 and 2, Ward No. 2, West Carroll parish, voted to construct roads. Address Police Jury.

La., Lafayette—City engaged Louis J. Voorhies, St. Martinville, La., to supervise lay of cement sidewalks.

La., Lake Charles—Calcasieu parish votes Oct. 16 on \$300,000 bonds to build roads. Address Police Jury. (Lately noted.)

La., Tallulah—Madison Parish Police Jury will construct road from Tallulah north to parish line connecting with road traversing East Carroll parish; State Highway Dept. appropriated \$8000.

La., Washington—City let contract Claude A. De Jersey, Eunice, La., to lay concrete sidewalks and curbs on Main St.; J. J. Naff, Engr.; F. P. Martin, Mayor. (Call bids lately noted.)

Md., Baltimore—Paving Com., R. Keith Compton, Chrmn., City Hall, will pave 19 mi. additional streets during 1914, and will ask for another \$1,000,000 of \$5,000,000 loan authorized; \$2,500,000 will be expended by end of present year. (Bids invited and contracts awarded heretofore reported.)

Md., Baltimore—City will grade, curb and pave on Windsor and Clifton Aves. and Poplar Grove, Longwood and Rosedale Sts.; bids until September 17; about 11,800 sq. yds.; sheet asphalt; contract No. 127; Eugene E. Grannan, Prest. Commrs. for Opening Streets. (See Machinery Wanted.)

Md., Baltimore—City let Contract No. 126 American Paving & Contracting Co., Montebello Ave. and Jenkins La., Baltimore, at \$56,247.25; streets include Ellamont, Rosedale, Smallwood, etc.; 22,800 sq. yds.; bituminous concrete. (Call for bids lately noted.)

Md., Baltimore—Paving Com., R. Keith Compton, Chrmn. and Consult. Engr., will grade, curb and pave with sheet asphalt and vitrified block parts of St. Paul, Laurens and Lanvale Sts., contract No. 71; sheet asphalt, 5069 sq. yds.; vitrified block, 570 sq. yds.; bids received at City Register's office until Sept. 17. (See Machinery Wanted.)

Md., Cumberland—Allegany County Commrs. authorized \$10,000 bonds to improve roads.

Miss., Laurel—City let contract Southern Paving & Construction Co., Chattanooga, Tenn., at \$88,452.12 for 4 mi. paving. (Lately noted.)

Miss., Pascagoula—Dist. No. 3, Jackson county, will issue \$10,000 bonds to build roads. Address Dist. Commrs.

Miss., Pascagoula—Dist. No. 4, Jackson county, will issue \$15,000 bonds to build roads. Address Dist. Commrs.

Miss., Raleigh—Dist. No. 1, Smith county, will probably let contract about Nov. 1 to construct 18 mi. additional sand-clay road; B. S. Snowden, Snowden, N. C., Engr., advises that district is on route of proposed Interstate Highway; 29 mi. under construction; completed by Jan. 1. (Lately noted.)

Miss., Vicksburg—Warren County Supvs. contemplate \$300,000 bond issue to build roads.

Miss., Waynesboro—Wayne County Supvs. ordered \$100,000 bond issue to build roads.

Mo., Boonville—City voted \$25,000 bonds to improve streets. Address The Mayor.

Mo., Boonville—City, Chas. G. Miller, Clerk, advises will use lately-noted \$25,000 bond issue for street grading and intersections, in connection with brick and concrete paving, now mainly under construction; one block not yet contracted or advertised.

Mo., Kansas City—City let contract H. H. Hannenkraft at \$38,500 grade 18th St. from Parallel Ave. to Muncie Blvd.

N. C., Charlotte—Mecklenburg County Commrs. ordered construction of road from Matthews to Mint Hill, 4 1/2 to 5 mi.; 3 mi. to be macadam and remainder sand-clay; also from Union county line to Hood's crossing, 2 1/2 mi. sand-clay.

N. C., Charlotte—Executive Board let contract R. N. Hudson, Atlanta, Ga., at about \$70,000 for 42,452 sq. yds. sheet asphalt and asphaltic concrete street paving; A. H. McDaniel & Co., Augusta, Ga., at \$16,017.11, 868 sq. yds. cement sidewalks; A. H. Wearn, clerk. (Call for bids lately noted.)

N. C., Gatesville—Gates County Commrs. will issue \$500 bonds to improve roads.

N. C., Tarboro—Edgecombe county will build 3 mi. sand-clay road. Address County Commrs.

Tenn., Dandridge—Jefferson County Pike Com., Arthur Holtsinger, Secy., will grade

about 35 mi. road; bids received until Sept. 15. (See Machinery Wanted.)

Tenn., Knoxville—Knox County Road Com. let contracts to resurface roads; J. R. Simpson at \$1200 to \$1500, 1 1/4 mi. Sevierville Pike; J. C. A. Burnett Co. at about \$1000 each, section Island Home Pike and 300 yds. Martin Mill Pike.

Tex., Angleton—Velasco Dist. of Brazoria county voted \$75,000 bonds to construct 3 roads from Velasco. Address County Commrs. (Lately noted.)

Tex., Seadrift—City voted \$8000 bonds to grade, shell and otherwise improve streets. Address The Mayor. (Lately noted.)

Tex., Lockhart—Precinct No. 1, Caldwell county, contemplates voting on \$50,000 bonds to macadamize roads. Address County Commrs.

Tex., Hillsboro—City contemplates paving portions of West Elm and West Franklin Sts. with vitrified brick, and Church St. from Elm to Franklin St. with Hassam paving; cost about \$35,000; Gekander Bros., Waco, Tex., to be contractor.

Va., Charlottesville—E. C. McCox, Secy. Chamber of Commerce, advises as follows: Now agitating voting \$60,000 bonds, \$30,000 by city and \$30,000 by county, to be supplemented by equal amount (\$60,000) by State, latter to furnish convict labor to about half of cost of construction. (Improvements of roads in Charlottesville Dist. lately noted.)

Va., Richmond—Glinter Park will resurface roadways, asphaltic concrete, asphalt macadam or hot-surface treatment; L. R. Curry, Chrmn. Com. on Streets, 45 N. 7th St., Richmond. (See Machinery Wanted.)

Va., Richmond—City will gravel streets in Wm. Byrd Realty Corp. addition, construct granolithic curbs and gutters, build rubble stone wall and grade in South Richmond; bids received until Sept. 9 at office Chas. E. Bolling, City Engr. (See Machinery Wanted.)

Va., Richmond—Administrative Board let contracts to improve streets in Southside; Tidewater Construction Co., at \$1800, grade and macadamize 4 blocks Petersburg Pike; K. L. Block & Co., at \$1800, grade and macadamize 10 blocks along Semmes St.; C. M. Weinburn, \$1075, alley crossings between Decatur and Perry Sts.; J. Y. Perkins, \$2410, for granolithic sidewalks on 10th St., and to John J. Curley, at \$5821, for granolithic sidewalks on portions 36th St., Davis and Park Aves.; Chas. E. Bolling, City Engr.

W. Va., Parkersburg—City will complete paving in portions of 12th, 16th, Ann, 14th, Green, 8th, Clay, Oak and Avery Sts., Williams Ct., St. James and Phillips Ct. Ala.; bids received until Sept. 15; Frank Good, City Clk. (See Machinery Wanted.)

W. Va., Triadelphia—Town Council will pave with brick National Rd. through town; bids received until Sept. 16; Walter Thomas, Clk. (See Machinery Wanted.)

### SEWER CONSTRUCTION

Ala., Brundidge—City voted \$10,000 sewer bonds. Address The Mayor.

Md., Rockville—Montgomery County Commrs., Joseph T. White, Prest., will construct sewer system in Silver Spring subdivision; bids received until Sept. 16 from engineers for general plans. (See Machinery Wanted.)

Miss., Laurel—City let contract S. A. Carnes, Laurel, to construct storm sewers.

Mo., Springfield—City let contract John Spandri at \$14,630 to construct sewer in Section 8 of sewer district.

N. C., Charlotte—City let contract Acme Plumbing Co., Charlotte, at \$2546 to lay sewers and drains; A. H. Wearn, Clk. (Lately noted.)

N. C., Wilmington—City will negotiate \$75,000 loan to complete extension of sewer system. Address The Mayor.

Okla., Durant—City will construct sewage-disposal plant; bids received until Sept. 30; Benham Engineering Co., Consult. Engr., 435 American National Bank Bldg., Oklahoma City. (See Machinery Wanted.)

S. C., Columbia—City contemplates extending sewer and water systems, including laying 25 mi. mains; recently noted contemplating voting \$300,000 bonds for sewer and water extensions; W. F. Stieglitz, Supt. Water-works and Sewerage; F. C. Wyse, Engr. Supt. (See Water-works.)

S. C., Winnsboro—City will vote on \$65,000 bonds to build sewer system and water-works. Address The Mayor. (Lately noted.)

Tex., Houston Heights—City votes Dec. 18 on \$200,000 bonds to construct sewer system. Address The Mayor. (Lately noted.)

Va., Harrisonburg—City contemplates building sewage-disposal plant; 800,000 gals. capacity; plans not definitely determined; J. G. Yancey, Jr., Recorder.

Va., Pulaski—City let contract American Light & Water Co., 512 First National Bank Bldg., Chicago, at \$41,940 to construct sewer system; 10 mi. 6 to 18-in. vitrified pipe; M. S. Hudgins, City Engr. (Lately noted.)

### TELEPHONE SYSTEMS

Ala., Foley—Baldwin County Producers' Corp. will purchase South Baldwin Telephone Co.'s system; improve and extend.

Ala., Tuscaloosa—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) will extend long-distance system from Tuscaloosa to Centerville, Ala.; now extending lines to Reform, Carrollton, Alceville and Geiger under supervision of L. K. Wilson, Mgr. Tuscaloosa Dist.

Md., Hagerstown—Chesapeake & Potomac Telephone Co., 5 Light St., Baltimore, will erect exchange; 3 stories; brick; concrete foundation; electric light; McKennie, Voorhies & Gmelin, Architects, 1123 Broadway, New York; bids opened Sept. 10.

Tenn., Bristol—Bristol Telephone Co. plans placing telephone cables under ground.

Tex., Dallas—Southwestern Telephone & Telegraph Co. will erect exchange and lay underground conduits in Oak Lawn.

### TEXTILE MILLS

Ala., Alexander City—Cotton Goods.—Russell Mfg. Co. will install equipment for electric drive, consisting of three 150 K. V. A. and one 20 K. V. A. transformers, 38 motors of 1 to 50 H. P., switchboard panel, switches and accessories; all ordered.

Ga., Augusta—Cotton Goods.—Riverside Mills will add (to electrical drive equipment) 150 K. W. alternating current generator with 5 K. W. exciter and two 50 H. P. motors; order placed.

N. C., Asheville—Cotton Goods.—French Broad Mfg. Co. increased preferred capital stock from \$250,000 to \$750,000.

N. C., Kannapolis—Cotton Goods.—Cabarrus Cotton Mills will add 20 20 H. P. special 4-frame motors and switches to equipment for electric drive; placed order.

N. C., Salisbury—Cotton Goods.—Salisbury Cotton Mills will build 2-story brick addition.

N. C., Statesville—Hosiery.—Bradford Knitting Mill will add 25 new 360-needle knitting machines; has ordered; will install 5, 10 and 15 H. P. motors for electric drive, one of each; has not ordered these. (See Machinery Wanted.)

S. C., Camden—Cotton Goods.—Hermitage Cotton Mills holds meeting Oct. 1 to consider increasing capital from \$235,000 to \$250,000.

S. C., Clinton—Cotton Yarn.—Lydia Cotton Mills will add 1440 spindles; contract awarded. (Lately noted.)

S. C., Union—Knit Goods.—J. H. Gault will build knit-goods mill.

Tenn., Riceville—Knit Goods.—Riceville Knitting Mills, capital stock \$35,000, inceptd. by R. J. Fisher, C. W. Oliphant, D. H. Roberts and others.

Tenn., Morristown—Hosiery.—Holston Mfg. Co., Lenoir City, will install 250 knitters and ribbers and electric power equipment in 1-story 200x60 ft. building. (Lately noted as to erect building, etc.)

Tenn., South Pittsburg—Hosiery.—Aycock Hosiery Mills, capital stock \$100,000, organized with B. C. Aycock as Prest.-Mgr.; bought plant heretofore operated by Mr. Aycock; next June will install dyehouse and increase capacity about 50 per cent.; present daily output 1000 doz. pra. hose.

Tenn., Trenton—Cotton Goods.—R. A. Love, Gastonia, N. C., purchased Trenton Cotton Mills; will add new machinery.

### WATER-POWER DEVELOPMENTS

W. Va., Springfield—Magnolia Power Co. proposes to construct hydro-electric plant developing 13,000 H. P.; total cost \$1,000,000; in south branch, Potomac River; transmit electricity to Springfield, Romney, etc.; Engr., F. Ernest Brackett, Cumberland, Md. (Previously reported inceptd.)

### WATER-WORKS

Ala., Greensboro.—Greensboro Water & Light Co. will install electrically-driven pumps, etc. (See Electric Plants.)

Ala., Powderly, R. F. D. from Birmingham

ham.—Birmingham Water-works Co. contemplates, it is reported, extending mains at Powderly.

Ark., Eureka Springs.—City appointed committee (L. W. McCrory, C. P. Ellis and others) to consider piping Blue Springs water to city.

Fla., Jacksonville.—City will open bids October 6 to install recently described pumping engine of 12,000,000 gals. capacity; E. L. Carroll, Supt. Water and Sewer Depts. (See Machinery Wanted.)

Fla., Newberry.—City voted bonds to purchase water and electric-light plant in course of erection. Address The Mayor.

Ga., Cordele.—City receives bids until Sept. 23 (postponed date) to furnish materials, except pipe, and lay 3 miles water mains, construct reinforced concrete reservoir (250,000 gals. capacity), brick pumping station, 48-in. by 80-ft. brick or concrete circular stack; install 100,000-gal. tank and tower, 1,500,000-gal. pumping engine, two 72x18 pressure R. T. boilers, 350-ft. comp. duplex air compressors, 30 gate valves, 30 fire hydrants, 350 tons C. I. pipe, principally 8-in.; G. S. Harris, City Clerk; Arthur Pew, Consult. Engr., Atlanta, Ga.; lately noted. (See Machinery Wanted.)

Ky., Harlan.—City will construct water-works; bids invited; cost \$20,000. Address The Mayor.

Ky., Lawrenceburg.—City considering bond issue to improve water-works if property is not sold. J. P. McWilliams, Mayor, advises: "Vote in November on bond issue to replace 3 miles pipe line."

La., Hammond.—City will expend \$5600 on artesian well; 800 gals.-per-min. capacity; contract let to Paterno Deep Well Co.; T. R. Thames, Commr. Finance. (Ronds lately noted.)

La., Marksville.—City let contract C. A. Reese, Shreveport, at \$23,500 to construct water and electric-light plants; T. T. Fields, Mayor. (Lately noted.)

Md., Baltimore.—City let contract Elkan-Tuft Construction Co., 702 E. Lexington St., Baltimore, to build pumping station at Lake Montebello, Contract No. 21; Ezra B. Whitman, Water Engr. (Call for bids lately noted.)

N. C., Blowing Rock.—Town considering constructing water-works. Address Town Clerk.

N. C., Elkin.—City let contract J. B. McCrory Co., Atlanta, Ga., to build water-works; \$25,000 bonds voted; C. G. Armfield, Mayor. (Lately noted.)

N. C., Goldsboro.—City will construct concrete reservoir; 500,000 gals. capacity; reinforced concrete cover; 2500 cu. yds. excavation, 300 cu. yds. plain concrete and 90 cu. yds. reinforced concrete; bids received until Sept. 9; John R. Higgins, Mayor; Gilbert C. White, Engr., Charlotte, N. C.; lately reported to construct 1,500,000-gal. reservoir. (See Machinery Wanted.)

N. C., High Point.—City will build 3,000,000-gal. storage reservoir equipped with electrical pumps; Fred N. Tate, Mayor. (Previously noted.)

Okl., Valliant.—City voted bonds to construct water-works; E. W. Gantt, Consult. Engr., Sam Houston Life Bldg., Dallas, Tex. (Previously noted.)

S. C., Columbia.—City contemplates extending water-works system in 3 territories (recently annexed), including laying 25 mi. water and sewer mains, installing 10,000,000-gal. pump, 8 filter beds (8,000,000 gals. capacity) and concrete clear-water basin; W. F. Stieglitz, Supt. Water-works and Sewerage; P. C. Wyse, Engr. Supt. (Recently noted contemplating voting \$20,000 bonds for water and sewer systems.)

S. C., Winnsboro.—City will vote on \$65,000 water-works and sewer system bonds. Address The Mayor. (Lately noted.)

Tenn., Lewisburg.—City will construct concrete dam, 300x18 ft.; private bids; no machinery bids asked; cost \$20,000; C. C. Houston, Mayor. (Recently noted as issuing \$20,000 bonds.)

Tex., Archer City.—City will construct 1.1 miles 4-inch main from standpipe to court-house; cost \$2500; voted \$7000 water-works bonds; W. C. Young, Mayor. (Recently noted.)

Tex., Longview.—City will construct mechanical filtration plant, 1,000,000 gals. capacity, pumping and electric-light plant, and discharge main 3½ mi. long; cost \$110,000; complete plans, etc., at City Secy.'s office and office of Actua Engineering Bureau, 17 N. LaSalle St., Chicago; bids until Oct. 8;

A. Bodenheim, Mayor. (See Machinery Wanted.)

Tex., Somerville.—City contemplates \$10,000 bond issue to construct water-works. Address The Mayor. (Lately noted.)

Va., Harrisonburg.—Town purchased 7 acres as site for reservoir; capacity, 5,000,000 to 10,000,000 gals.; probably reinforced concrete; engineer not employed; definite plans not made; J. G. Yancey, Jr., Recorder. (Lately noted.)

W. Va., Keyser.—City will extend and renew water mains; 1250 ft. 8-in. and 2500 ft. 4-in. mains; Leander Schmidt, Engr.; H. G. Steorts, Water Supt.; bids received until Sept. 9. (See Machinery Wanted.)

## WOODWORKING PLANTS

Ala., Talladega.—Heading and Staves.—Geo. R. Burton, Roland G. Spearman and others organized company; capital stock \$15,000; mfrs. heading and staves.

Ala., Ragland.—Heading.—Watt T. Brown, J. T. Brown, McNeill Bros. and H. N. Quillian organized company; will establish heading mill.

Ark., Piggott.—Staves and Heading.—Myers Stave & Mfg. Co. organized with J. M. Myers Pres.; G. W. McMillan, Los Angeles, Cal., V. P.; J. R. Myers, Secy.-Treas. and Mgr.; increase power of established plant; may install electric drive; mfrs. rough tight barrel staves and heading. (Lately noted inept. \$25,000 capital.)

La., New Orleans.—Wagons.—Phillip Forscher Wagon & Mfg. Co., capital stock \$10,000, incorporated by Hubert M. Ansley and E. Norman.

La., West Monroe.—Sash and Doors, etc.—Bell Mfg. Co., O. O. Clark, Pres., is erecting drykiln 20x70 ft. and dry lumber shed 32x140 ft.; main building, 100x150 ft., completed and machinery installed. (Lately noted incorporated under Lumber Mfg. Plants, \$50,000 capital.)

Mo., Des Arc.—Handles.—Graves & Stamp will rebuild handle factory burned at loss of \$50,000; factory 18x110 ft.; boiler and engine-room 30x40 ft.; 2 warehouses 20x50 ft. each; metal roof and slides; building proposals closed; machinery purchased. (See Machinery Wanted.)

N. C., Washington.—Buggies.—Washington Buggy Co. now repairing plant reported damaged by storm.

Va., Gate City.—Handles.—Huntington Handle Co., Huntington, W. Va., leased Gate City Handle Co.'s plant and will manufacture all kinds handles.

## BURNED

Ala., Birmingham.—R. H. Pogue's residence 3421 Willow Ave.; J. L. Weaver's residence 3427 Willow Ave. damaged; loss \$7000.

Ark., Ashdown.—H. L. Toland & Co.'s store, loss on building \$5000; Little River County Bank, loss \$30,000; Model Drug Store, loss on building, owned by C. G. Harris, \$5000; Sanderson Bldg. damaged, loss \$3000. (Lately noted.)

Ark., Bolme.—Sheldon Handle Co.'s plant; loss \$15,000.

Ark., Fort Smith.—Mrs. I. S. Lowrey's building, 822 Towson St.; loss \$12,000.

Ark., Hope.—Hope Lumber Co.'s mill at Red Lathia Springs; loss \$15,000.

Ark., Hot Springs.—Park Hotel, loss \$500,000; Southwestern Telegraph & Telephone Co., \$315,000; Public Utilities, \$225,000; Cooper Bros.' stables, \$60,000; St. Louis, Iron Mountain & Southern Ry.'s (J. R. Stephens, Ch. Engr., St. Louis) freight and passenger depot, \$30,000, and shops, \$25,000; Central Methodist Church, \$75,000; J. Dillard's laundry, \$40,000; People's Laundry, \$40,000; Moody Hotel, \$30,000; Orange Street Presbyterian Church, \$20,000; Central High School, \$70,000; Ozark Sanitarium, \$40,000; Zigler Apartments, \$65,000; county court-house, \$110,000; Sam Watts' residence, \$70,000; Bijou Bldg., \$20,000; Woodcock Flats, \$35,000; Pasturized Milk Co.'s plant, loss \$100,000; Hamp. Williams' store, \$150,000; Hot Springs Commission Co., \$5,000; Scott Mayer Commission Co., \$50,000; Wm. J. Lemp's brewery, \$100,000; Sammons & Sons' store, \$15,000.

Ark., Texarkana.—G. W. Bishop's barn; loss \$8000 to \$10,000.

Fla., Panlow.—Tallahassee Sawmill, owned by J. L. Phillips, Thomasville, Ga., and others; estimated loss, \$150,000.

Fla., Sanford.—Virginia-Carolina Chemical Co.'s fertilizer plant; E. B. Brown, local mgr.; main office, Richmond, Va.

Ga., Buena Vista.—Geo. R. Lowe's warehouse.

Ga., Rome.—M. B. McWilliams' residence; loss \$15,000.

Ky., Bowling Green.—Hogan & Smith's sawmill.

Ky., Covington.—J. Stevie's roadhouse, Lexington pike; J. Fritsch's residence; loss \$50,000.

Ky., Frankfort.—Four cottages owned by Baker Distillery, Forks of Elkhorn, Ky.; loss \$5000.

Ky., Georgetown.—Prather Bros.' garage.

Ky., Glasgow.—Powell & Rogers' store; loss \$4000.

Ky., Lakeland.—Central Hospital's boiler room; loss \$9000; Dr. W. E. Gardner, Supt.

Ky., Somerset.—Johnson Block; Somerset Ice-cream Co.'s plant; People's Drug Co.'s store; Timble's Grocery Co.'s store; Crain Coal Co.'s office; loss \$20,000.

Ky., Smiths Grove.—Wm. Moon's residence; loss \$3000.

Ky., Trenton.—McGehee Block; C. B. Holman's stable; Martin & McGehee's blacksmith shop; total loss \$10,000.

Ky., Taylorsville.—William Randall's blacksmith shop and residence; I. W. Beauchamp's warehouse; F. G. Greenwell's residence; Greenwell & Son's store; Simpson McGoughy's residence; Edw. Allen's Taylorsville Hotel; total loss \$40,000.

La., Bastrop.—Max Kaplan's building; G. W. Naff's building.

La., Lake Charles.—Wm. Martin's wharf and boathouses; loss \$1000.

La., Natchitoches.—J. W. Williams' gin; loss \$3000.

La., Shreveport.—Shreveport Salvage Co.'s picking shed and storehouse; loss \$11,100.

La., Strader.—Owl Bayou Cypress Lumber Co.'s sawmill; loss \$48,000.

Md., Baltimore.—Purnell Art Co.'s store, 224 N. Howard St., damaged; loss \$60,000.

Mo., Kansas City.—Howard, Childs & Fowler's building, 911 McGee St.; loss \$4000.

Md., Millington.—Millington Canning Co.'s plant.

Mo., St. Louis.—Garment factories in Rosenheim Bldg.: A. D. Gross Skirt Co., loss \$2000; Starr-Brill-Stoener Garment Co., \$10,000; Greenberg & Steinhaur Cloak & Suit Co., \$1500; Cohn-Frank Mfg. Co., \$5000; A. Cross Garment Co., \$1000; Van Zandt, Jacobs & Co., \$1500; F. Weber & Co., \$4000; building damaged, loss \$20,000; total loss, \$50,000.

Mo., Tuckahoe, R. F. D. from Joplin.—Navaho Mining Co.'s plant; reported loss.

Mo., Webb City.—Athletic Mining Co.'s milling plant; Chas. T. Orr, Gen. Mgr.; loss \$40,000.

N. C., Sea Gate.—D. M. Beardsley's residence; loss \$5000.

N. C., Statesville.—Plant leased by Nebett Lumber Co.; P. R. Houpp and J. M. Adams, owners; loss \$40,000.

Okl., Bokhom.—Wilson Lumber Co.'s saw-

mill, planing mill, drykilns, 2 hotels, stores and various other buildings; estimated loss, \$500,000; offices, Dallas, Tex.

Tenn., Cedar Hill.—Gossett & Draughon's warehouse, loss \$7000; Joe Jackson's stable.

Tenn., Columbia.—Evans, Parker & Moore's building, owned by White Frierson, Knoxville, loss \$10,000; two buildings owned by R. L. McKenney and W. P. Ridley, loss \$20,000; building owned by Norman Kirkman, Nashville, loss \$10,000.

Tenn., Dyersburg.—E. G. Rucker's 2 residences; Dr. W. H. Tucker's residence; loss \$11,000.

Tenn., Red Bolling Springs.—Sawmill owned by Geo. B. Graves of Kennedy Bros. & Graves, Nashville, Tenn.

Tenn., White Bluffs.—Crowe Bros.' sawmill; loss \$1000.

Tenn., Woodbury.—Cannon Courier Publishing Co.'s plant; loss \$1200.

Tex., Austin.—Dwelling 706 W. 24th St., owned by Miss A. B. Numbers, 1209 Rio Grande St.; loss \$12,500.

Tex., Bonham.—Homer Thompson's residence Chestnut St.; loss \$3500.

Tex., Kyle.—W. G. Neuse's building, loss \$7000; Tompkins Co.'s building, loss \$15,000; Kyle Drug Co.'s store, loss \$9000.

Tex., Palestine.—Texas Light & Power Co. will rebuild electric-light plant lately reported burned; loss \$30,000.

Tex., Rogers.—O. J. Copeland's residence; loss \$5000.

Tex., Van Alstyne.—Commercial Hotel, building owned by C. E. Carter; loss \$4000.

Va., Norfolk.—Hampton Roads Yacht Club.

W. Va., Huntington.—Newton Ferguson's residence, Low Gap Branch; loss \$5000.

W. Va., Parkersburg.—Harrison Stephens' residence.

## DAMAGED BY STORM

N. C., Washington.—Washington county's steel bridge over Pamlico River, loss \$30,000; Eureka Lumber Co.'s plant, loss \$60,000; Moss Planing Mill Co.'s plant, \$20,000; S. R. Fowle & Son's store, \$50,000; Washington Buggy Co.'s plant, \$10,000; Havens Grist Mill, \$20,000; Havens Oil Co.'s plant, \$30,000; Pamlico Cooperative Co.'s plant, \$10,000; Wm. Bragaw & Co.'s store, \$10,000; J. K. Hoyt's store, \$20,000; E. R. Mixon & Co.'s store, \$10,000; Kogler Lumber Co.'s plant, \$50,000; H. M. Jenkins Co.'s store, \$8000; Atlantic Coast Lumber Co., (E. B. Phasants, Chief Engr., Wilmington, N. C.), \$50,000 to \$60,000; Pamlico Chemical Co.'s plant, \$20,000; Pamlico Brick & Tile Co.'s plant, \$2000; Crystal Ice Co.'s plant, \$7000 to \$4000; Daily News, \$2000 to \$3000; Norfolk Southern R. R. (F. L. Nicholson, Chief Engr., Norfolk, Va.), \$150,000; Washington Light & Water Co.'s electric-light plant, \$5000; Carolina Distributing Co.'s store, \$5000; James Edson Co.'s store, \$10,000; Swindell & Fulford Fish Co.'s building, \$2000.

# BUILDING NEWS

## BUILDINGS PROPOSED

### APARTMENT-HOUSES

D. C., Washington.—Harry Wardman, 1342 New York Ave., has plans F. R. White, 1701 Park Rd. N. W., for apartment-house 1619 R St. N. W.; 95x18 ft.; 6 stories; tapestry brick; 35 two-to-five-room suites; marquise style entrance finished in ornamental iron glass; mosaic flooring in lobby; cost \$125,000; construction by owner. (Lately noted.)

Fla., Tampa.—Lowry & Prince will erect flat Hyde Park; cost \$10,000.

Ga., Atlanta.—Frank L. Fleming will erect apartment-house Ansley Park; brick; 3 stories; 12 to 15 suites; cost \$20,000.

La., New Orleans.—Walter Cook Keenan prepared plans for duplex 2-story apartment-house Broadway and Perret St.

Md., Baltimore.—Walter M. Gloske, 66 Gunther Bldg., is preparing plans for apartment-house Wallbrook and Edgewood Aves.; 3 stories; brick; terra-cotta trimmings; 32x144 ft.

Mo., St. Louis.—Wm. Bryant will erect 2-story flat 4042-44 Natural Bridge St.; cost \$7000.

Mo., St. Louis.—W. C. Bosquit will erect 2-story flat 3915-17 Wyoming St.; cost \$5500.

Mo., St. Louis.—G. Flebiger will erect 2-story flat 3920-22 Texas St.; cost \$4700.

Mo., St. Louis.—E. J. Troy will erect 2-story flat 257-59 Cleveland St.; cost \$5000.

Mo., St. Louis.—Julius Bernacchi will erect store and apartment building. (See Stores.)

Mo., St. Louis.—A. Schneider will erect 5-story apartment-house 5817 Waterman St.; cost \$15,000.

Mo., St. Louis.—F. L. Dittmeier will erect four 2-story tenements 3622-24-26-28 Virginia St.; cost \$14,000.

Mo., St. Louis.—Estelle Schroeder will erect two 2-story flats 3814-16 McKee St.; cost \$10,000.

Mo., St. Louis.—Herman Schroeder will erect 3 and 4-room flat Chouteau Ave.

Mo., St. Louis.—Walter Jones will erect two single flats Fair Ground Pl.

Mo., St. Louis.—Jos. Ververloh will erect 2-story store and tenement 3155-59 Cherokee St.; cost \$3540.

Mo., St. Louis.—Otto S. Hays will erect 2-story flat 5544 Giles St.; cost \$4500.

Mo., St. Louis.—Leopold Levy, Prest. Hub Furniture Co., and Chas. F. Levy will erect apartment-house Berlin Ave.; three 7 and 8-room suites; sun parlors; sleeping porches; garages; old English style; Chas. F. Levy will superintend construction.

Mo., St. Louis.—Miss Louise Scheuner will



erect 2-story flat 3342 Connecticut St.; cost \$5000.

Mo., St. Louis.—John Polinski will erect 2-story flat 3233 Pulaski St.; cost \$3650.

Tenn., Knoxville.—H. C. Bondurant will erect 3 apartment-houses 423-27 Vine St.; brick; 2 stories and basement; fireproof walls; cost \$8000.

Tenn., Nashville.—Goodlett Realty Co. will improve Griffith House for stores and apartments. (See Stores.)

Tex., Dallas.—J. and C. Paternostro will erect store and flats. (See Stores.)

Tex., Houston.—Wolf Bros. have plans for store and apartment building. (See Stores.)

## ASSOCIATION AND FRATERNAL

La., Lake Charles.—Odd Fellows' Hall Assn. organized; \$25,000 capital stock; Geo. M. King, Pres.; Rudolph Krause, V.P.; T. F. Porter, Secy.; H. W. Lanz, Treas.; will erect building.

Miss., Starkville.—Young Men's Christian Assn. of Agricultural and Mechanical College opens bids Jan. 1 to erect building lately noted. (See Schools and Machinery Wanted.)

N. C., Winston-Salem.—Young Women's Christian Assn. will erect building.

Tenn., Johnson City.—Johnson City Lodge No. 825, Benevolent Protective Order of Elks, will erect building; cost \$30,000.

Tex., Waxahachie.—Benevolent and Protective Order of Elks, E. B. Prince, Chrm., will expend \$20,000 to erect clubhouse; 60x70 ft.; brick; mill construction; electric elevator; metal tile roof; archt. not selected. (Lately noted.)

## BANK AND OFFICE

Ark., Ashdown.—Little River County Bank, Frank McCann, Cashr., will rebuild bank; plans not determined. (Lately reported burned.)

D. C., Washington.—Chas. J. Butler, 913 G St. N. W., will remodel building 737 13th St. for offices; erect addition to increase size to 19x100 ft.; rearrange interior walls and partitions; provide ornamental terra-cotta and tapestry brick front with cornice, belt and sill courses of terra-cotta; vestibule in light colored marble; plate-glass windows; Rich & Fitz Simons, Archts., Bond Bldg.

D. C., Washington.—Fredk. H. Gillett, 1525 18th St. N. W., will erect office building 14th and H Sts.

Fla., Zephyrhills.—First State Bank of Zephyrhills will erect building; composite brick. (Lately noted under Fla., Plant City.)

La., New Orleans.—Bank of Terrebonne has plans by Favrot & Livaudais for 2-story brick building.

Miss., Biloxi.—D. J. Gay is having plans prepared by Wm. Drago, New Orleans, for 2-story bank and office building. (Previously noted.)

Md., Hagerstown.—Hy. C. Foltz will erect store and office building. (See Stores.)

N. C., Hendersonville.—Meyer & Stillwell will erect office building E. 4th St.

N. C., Greensboro.—Dixie Fire Insurance Co. will erect 3-story addition to Dixie Bldg.; 40x48 ft.; mill construction; steam heat; electric lighting; composition roof.

Tenn., Cookeville.—A. G. Maxwell and R. L. Farley are having plans prepared for arcade building for stores and offices. (See Stores.)

Tenn., Maryville.—Bank of Maryville opens bids through Baumann Bros., Archts., Knoxville, Sept. 10, to erect bank; 25x100 ft.; ordinary construction; steam heat; electric lighting; slate roof; cost \$20,000. (Recently noted to receive bids until Sept. 12.)

Tex., Port Arthur.—C. D. Hill & Co., Sumpter Bldg., Dallas, are preparing plans for store and bank building. (See Stores.)

W. Va., Charleston.—Kanawha National Bank and Frankenberg estate open bids Sept. 24 to erect bank, office and store building. (See Stores.)

W. Va., Flemington.—Bank of Flemington contemplates erecting building.

## CHURCHES

Ala., Ensley.—Grace Presbyterian Church will erect building Ensley Highlands; 56x70 ft.; brick; metal roof; electric lights; cost \$15,000. Address The Pastor.

Ala., Fairfield.—Plunkett Memorial Chapel will erect building. Address The Pastor.

Ala., Mobile.—St. John's Episcopal Church will erect chapel Warren near Dearborn St.; cost \$7500. Address The Rector.

Ark., Little Rock.—First Presbyterian

Church will erect building; Chas. L. Thompson, Archt., Southern Trust Bldg.

Fla., Miami.—Methodist Episcopal Church opens bids about Sept. 20 to erect building; 56x99 ft.; reinforced concrete; electric lighting; Spanish tile roof; cost \$30,000; plans by A. E. Lewis, 1022 Boulevard, Supr. Archt.; previously noted. (See Machinery Wanted.)

Ga., Atlanta.—Central Baptist Church has plans by W. C. Meador for building; 120x90 ft.; fireproof; hot-air heat; electric lighting; cost \$60,000. (Lately noted.)

Ky., Covington.—St. John's Church reported as having plans prepared by J. F. Shebley, 1191 Provident Bank Bldg., Cincinnati, for church and school; cost \$80,000.

La., Bayou Goule.—Rev. Andrew De Maurizi, White Castle, La., is interested in erection of Catholic chapel.

Mo., St. Louis.—St. Louis University will erect stone tower on St. Francis Xavier Church, 233 N. Grand St.; cost \$41,900.

N. C., Washington.—Christian Church will erect building; cost \$25,000. Address The Pastor, Christian Church.

Tenn., Memphis.—Washington Heights M. E. Church will erect building 1029 S. Wellington St.; cost \$15,000. Address The Pastor.

Tex., El Paso.—First M. E. Church is reported as to erect building; 2 stories; brick and stone; cost \$50,000; plans by A. M. Worth.

Tex., Franklin.—Baptist Church, Rev. I. N. Langston, pastor, has plans Cavitt Love for building; cost \$10,000.

Tex., Pleasanton.—Pleasanton Methodist Church, Rev. S. C. Dunn, pastor, has plans for building; cost \$35,000. (Lately noted.)

Tex., Van Alstyne.—Christian Church will erect building; brick; cost \$20,000. Address The Pastor.

Va., Avalon.—Corinth M. E. Church South, Rev. J. E. Hearn, pastor, will erect building.

Va., Crozet.—Taber Church will erect building. Address The Pastor.

Va., Lynchburg.—Park View Christian Church will erect building; mill construction; probably steam heating; combination fixtures; Rev. J. F. Watson, pastor, 234 12th St. (Lately noted.)

W. Va., Bluefield.—Evangelical Lutheran Church will erect building. Address The Pastor.

W. Va., Warwood.—Rev. P. J. Donahue of St. Joseph's Cathedral, Wheeling, W. Va., purchased site and will erect building.

## CITY AND COUNTY

Fla., Lake City.—City Hall.—City will erect city hall; probably brick; electric lighting; cost \$8000. Address The Mayor. (\$8000 bonds lately voted.)

Fla., Tampa.—City Hall.—Board Public Works receives plans until Dec. 2 for city hall; auditorium to seat 3500 or more; site 210x95 ft.; cost \$235,000; D. B. McKay, Mayor. (Lately noted.)

Ky., Pikeville.—Jail.—County Commrs., H. E. Ratcliff, Clerk, and W. B. Smith, Archt., Harvey Bldg., Huntington, W. Va., will receive bids until Sept. 16 to erect jail and sheriff's residence; 2 stories and basement; 36x82 ft.; probable cost \$25,000.

La., New Orleans.—Engine-house, etc.—City has plans by E. A. Christy for combination fire-engine house and 2d Precinct Police Station Annexation and Terpsichore Sts.; former 30x60 ft.; latter 50x60 ft.; pressed brick; cost \$25,000. (Lately noted.)

Md., Baltimore.—Residence.—City opened bids for superintendent's residence Sydenham Hospital, Bayview; 2½ stories; stucco and frame; slate roof; steam heat; electric lights; C. Herbold & Son, lowest bidders at \$758. (Lately noted.)

Okla., Tulsa.—Convention Hall.—City will expend \$75,000 to erect convention hall; 130x160 ft.; fireproof; \$9000 vacuum steam-heating plant; electric lighting; Rose & Peterson, Archts., Kansas City, Kans.; F. M. Wooden, Mayor. (Lately noted to receive bids until Sept. 8.)

Tenn., Chattanooga.—Fire Station.—City opens bids about Nov. 1 to erect fire station; ordinary construction; cost \$4000; J. T. Dugger, Bldg. Insptr. (Recently noted at Ridge-dale, Tenn.)

Tex., Dallas.—Hospital.—Dallas County Commrs. are considering erecting building at county farm for treatment of insane patients.

Tex., Clarksville.—City Hall.—City, John R. Webb, Clerk, receives bids until Sept. 10 to erect 2-story 42x50-ft. city hall; plans at Clarksville and office of Sparger & Peters, Bonham, Tex.; certified check, \$200.

Tex., Fort Worth.—Hospital.—City and Tarrant county are having plans prepared by Sanguinetti & Staats for joint city and county hospital 4th and Jones Sts. (Lately noted.)

Tex., Franklin.—Library.—City has plans Wayne B. Patterson, City National Bank Bldg., Temple, Tex., for Carnegie Library; 28x60 ft.; brick, mill work and wire work; metal tile roof; metal ceiling; electrical fixtures; cost \$10,000. (Previously noted.)

Tex., Houston Heights.—City Hall.—City will vote Dec. 18 on \$20,000 bonds to erect 2-story city hall and fire station. Address The Mayor.

Tex., Yorktown.—City Hall.—City will erect city hall; brick; electric lighting; architect not selected; F. W. Heinrich, Mayor. (\$8000 bonds lately noted voted.)

## COURTHOUSES

La., St. Bernard.—St. Bernard Parish Police Jury plans to erect courthouse Terre-Aux-Bœufs.

Tex., Austin.—Travis County Commrs. plan to erect courthouse.

## DWELLINGS

Ala., Birmingham.—Mrs. Ada Bryan will erect 2-story frame dwelling Arlington Ave. and Maiden La.; cost \$4000.

Ala., Birmingham.—J. S. Monks, Jr., will erect 1-story frame building; Cliff Rd.; cost \$3000.

Ala., Gadsden.—Bellevue Highlands Co. (Louis Hart and others) will erect 50 bungalows; mill construction; shingle and paper roofing; cost \$2500 each; plans by M. D. Hite, New Orleans; day labor.

Ala., Wylam.—Annie Peroles will erect 2-story brick dwelling; cost \$4000.

Ark., Altzheimer.—B. L. Willey, Pine Bluff, Ark., will erect residence.

Ark., Little Rock.—S. E. Wiggins will erect 2-story frame residence 20th and Market Sts.; cost \$3000.

Ark., Little Rock.—W. D. Bray, 1512 Scott St., will erect residence; cost \$6000.

Ark., Little Rock.—Oscar Schaad, 224 E. Markham St., will erect residence.

D. C., Washington.—J. R. Ha'elip, 139 1st St. N. W., has plans by Edw. O. Volland, 1348 Kearney Pl. N. E., for 2-story frame dwelling 1736 Georgia Ave.; cost \$4000; construction by owner.

D. C., Washington.—Mrs. Theodosia Wallace Pleadwell will erect residence 1818 R St. N. W.; Georgia style; Indiana limestone and tapestry brick; slate roof; laundry, heating plant, etc.; cost \$15,000; Clarke Waggaman, Archt., 1121 Connecticut Ave. N. W.

Fla., Brooksville.—Algernon Keathley will erect Japanese bungalow Main St.

Fla., Pensacola.—Robert Tumbler has plans by Alfred & Alfred, Box 271, for residence; 36x65 ft.; frame.

Fla., St. Augustine.—Buel Pinkham will erect 6-room cottage Grove Ave.

Fla., Tampa.—Mrs. H. B. McKee will erect \$4000 residence.

Fla., Tampa.—Carl Whitaker has plans by A. H. Johnson for residence; 8 rooms.

Ga., Atlanta.—W. A. Edwards will erect 2-story frame dwelling 187 E. 10th St.; cost \$7000; day labor.

Ga., Atlanta.—J. A. Pritchett will erect 1-story frame dwelling 49 McLendon St.; cost \$3000.

Ga., Atlanta.—E. A. Hartsock will erect 2-story frame dwelling 335 Highland Ave.; cost \$3800; 31x45 ft.; 3 stories; shingle roof; plans and construction by owner.

Ga., Savannah.—Richard M. Lester will erect residence.

Ky., Louisville.—B. J. Hagen will erect brick dwelling 2922 S. 3d St.; cost \$4000.

Ky., Louisville.—L. Jacobson will erect 8 frame cottages; cost \$10,050.

Ky., Louisville.—M. J. Murphy will erect frame dwelling Western Parkway and Madison St.; cost \$4000.

Ky., Louisville.—C. C. Edden will erect brick dwelling 2013 Edgeland St.; cost \$4000.

Ky., Pineville.—C. W. Cunningham will erect bungalow.

La., New Orleans.—Mrs. Josephine Wright will erect 2-story residence; cost \$5200.

La., New Orleans.—Frank B. Moore will erect two double cottages; cost \$3500.

La., New Orleans.—Wm. Richardson will erect cottage Canal Blvd.

La., New Orleans.—Herman Rudeger has plans by Raech & De Montluzin for California type bungalow Gentilly Ter.

La., New Orleans.—Nell A. Armstrong will erect double cottage St. Claude & Japonica Sts.

Md., Baltimore.—Dr. Gordon Wilson, 1318 N. Charles St., is having plans prepared by Laurence H. Fowler, 347 N. Charles St., for dwelling Guilford; brick and stone; cost \$25,000.

Md., Baltimore.—Wm. G. Scarlett, 729-35 E. Pratt St., is having plans prepared by Owens & Sisco, Continental Bldg., for dwelling Guilford; 2½ stories; brick; cost \$15,000.

Md., Baltimore.—John F. Carter will expend \$1500 each to erect 23 dwellings and 1 store; 14x19 ft.; mill construction; hot-air heat; gas and electric lighting; tin roof; plans and construction by owner. (Lately noted.)

Md., Baltimore.—M. Fillmore Carter, Remington Ave. and 31st St., is having plans prepared by Stanislaus Russell, 2900 Clifton Ave., for 15 two-story dwellings Edmondson Ave., between Hilton and Dennison Sts.; brick and stone; steam heat; electric lights; 17x12½ ft.; cost \$30,000.

Md., Baltimore.—Lohmuller Building Co., Jackson and Taylor Sts., will erect six 2-story brick dwellings Taylor St.; 14x44 ft.; cost \$8700; G. B. Lohmuller, Archt., 1735 N. Broadway; ordinary construction; hot-air heat; gas and electric lighting; Carey roofing; construction by owner.

Md., Baltimore.—H. Rowland Clapp, 901 S. Caroline St., opens bids Sept. 15 to erect dwelling Guilford; 56x37 ft.; ordinary construction; hot-water heat; electric lighting; slate roof; plans by Edw. L. Palmer, Jr., Roland Park, Md.; contractors estimating: Gindelfter & Chambers, 2074 Woodberry Ave.; G. Walter Toyell, Entaw and Dolphin Sts., both of Baltimore, and Roland Park Co., Roland Park. (Lately noted.)

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., has plans Henry J. Tinley, 312 N. Charles St., for residence Eldnor Ave. near Bateman Ave.; 1½ stories; frame; cost \$5500; construction by owner.

Md., Baltimore.—C. E. Morgan will erect residence Guilford; 42x26 feet; ordinary construction; hot-water heat; electric lighting; slate roof; plans by Edw. L. Palmer, Jr., Roland Park, Md., to whom proposals may be addressed. (Lately noted at Roland Park, Md.)

Md., Easton.—New Building & Loan Assn. purchased 5 lots and will erect dwellings; shingle and tin roofs; James B. Clark will supervise construction. (See Machinery Wanted.)

Md., Roland Park.—Mrs. Belle Lauman is having plans prepared by Owens & Sisco, Continental Bldg., Baltimore, for residence; 2½ stories; brick; cost \$10,000.

Md., Roland Park.—G. Emory Morgan will erect dwelling; 32x51 ft.; ordinary construction; hot-water heat; electric lighting; slate roof; plans by Edw. L. Palmer, Jr., to whom proposals may be addressed. (Recently noted.)

Mo., Kansas City.—Walter Edwards of Kansas City Paper House will erect residence 612 60th St.

Mo., Kansas City.—O. E. O'Connor, State Grain Inspection Dept., will erect residence 2637 Wornall Rd.

Mo., St. Louis.—C. H. Adams will erect 2-story dwelling 3832 Lafayette St.; cost \$4000.

Mo., St. Louis.—H. L. Prange will erect 3-story dwelling and 1-story garage 2277 Holly St.; cost \$15,887.

Mo., St. Louis.—Sam Koplar will erect three 2-story dwellings 1126-30 and 1199 Lawn St.; cost \$9000.

Mo., St. Louis.—Leisner Realty & Building Co. will erect three 2-story dwellings 3946-48 Conn. St. and 3228 Junata St.; cost \$12,000.

Mo., St. Louis.—Wallace Ulom will erect residence Kingsbury Pl. and Clara Ave.; colonial style; 12 rooms; 3 baths; front and rear sleeping porches.

Mo., St. Louis.—A. J. Hesse will erect cottages Upton St. and Eugene Ave.

Mo., St. Louis.—H. C. Howard will erect two 1-story dwellings 2901-03 N. Taylor St.; cost \$4000.

Mo., St. Louis.—C. E. Moran will erect four 1-story dwellings 532-34-36-42 Hurck St.; cost \$8000.

Mo., St. Louis.—Geo. F. Bergfeld Investment & Construction Co. will erect six 12-room residences Parkway; brick and stone; 2 or 3 baths; hot-water heat; electric lights; vacuum-cleaning system; Spanish tile roofs; cost \$15,000 each.

Mo., St. Louis.—Geo. Fahrenharst will

erect 2-story dwelling 4030 Magnolia St.; cost \$4000.

Mo., St. Louis.—Aug. Hufnagle will erect store and dwelling. (See Stores.)

N. C., Burgaw.—J. Ross McNeal will erect bungalow; let contract for sidewalks, sewerage and 10,000 gal. tank for water-works; use gasoline engine.

N. C., Gastonia.—J. R. Shuford will erect 2-story 8-room residence on W. Airline Ave.

N. C., Winston-Salem.—B. F. Southern will erect residence.

S. C., Ft. Mill.—Methodist Church will erect parsonage to replace burned structure. Address The Pastor.

S. C., Greenville.—Miss Minnie Breazeale will erect 12-room residence; cost \$3000.

Tenn., Memphis.—Memphis Building Co. will erect residences 1340-41 Ridgway Ave.; cost \$3000.

Tenn., Memphis.—Malkin & Dlugach will erect residences 1637 Netherwood Ave. and 1447 N. Parkway; cost \$4000.

Tenn., Memphis.—Harry Branan will erect residences 1640-41 Foster Ave.; cost \$4600.

Tenn., Nashville.—Lewis Williams has plans by Waller & Hinze, Nashville, for bungalow Lyschey Ave.; 7 rooms; cost \$3000.

Tenn., Nashville.—A. B. Lipscomb is having plans prepared by Waller & Hinze, Nashville, for colonial residence; 8 rooms; cost \$7000.

Tex., Bloomington.—Arthur Wheatley will erect residence.

Tex., Calvert.—Dr. W. H. Cain will erect residence.

Tex., Dallas.—C. D. Henderson will erect 6-room brick veneer residence 203 N. Edgfield Ave.; cost \$6500.

Tex., Dallas.—R. J. Hill will erect 8-room 2-story frame residence 807 W. Jefferson St.; cost \$4000.

Tex., Dallas.—Wm. Schween will erect 6-room frame cottage N. Edgfield Ave.; cost \$3500.

Tex., Dallas.—T. A. McAdams will erect 10-room 2-story frame residence 607 W. 10th St.; cost \$4000.

Tex., Dallas.—R. L. Stafon will erect 9-room 2-story frame residence 502 N. Windomere St.; cost \$5000.

Tex., El Paso.—Carl Ruedbush, Jr., is having plans prepared by Gibson & Robertson for 5-room residence; cost \$3500.

Tex., Houston.—C. C. Lewis will erect 7-room residence and garage Audubon St.; cost \$3000.

Tex., Houston.—W. A. Wickersham will erect 8-room 2-story frame dwelling 4535 Munger Ave.; cost \$5100.

Tex., Houston.—Paul Edwards will erect \$5000 bungalow Forest Hill; 5 rooms.

Tex., Houston.—R. M. Johnston plans to erect \$20,000 residence; Cooke & Co., archts.

Tex., Houston.—W. P. Hutchison will erect 6-room residence Main St.; cost \$3400.

Tex., Victoria.—Emil Sittlerlee, Asst. Cash. Farmers and Merchants' Bank, is having plans prepared by Hull & Praeger for residence; cost \$4000.

W. Va., Panther.—Panther Coal Co. will erect 50 dwellings for miners. (See Coal and Coke.)

W. Va., Parkersburg.—Home Building Co., \$25,000 capital, Incptd.; Thomas Logan, Pres.; Geo. O. Anderson, V. P.; John Marshall, Secy.; E. B. Neal, Treas.; will erect 16 dwellings; erect others later.

## GOVERNMENT AND STATE

Tex., Austin.—Hospital.—Mgns. State Insane Asylum adopted plans by C. H. Page & Bro. for hospital building; cost \$40,000.

## HOTELS

Md., Hagerstown.—C. Milton Thomas and J. Holton Sweeney interested in organizing company with \$40,000 capital to convert building into hotel or clubhouse.

Ky., Grayson Springs (not a P. O.).—Grayson Springs Hotel Co. will have plans by F. G. Newell, 35 Dearborn St., Chicago, for hotel; 265 rooms; cement and stucco; frontage 429 ft.; also erect casino and bathhouse; estimated cost \$450,000. (Company previously noted incorporated, \$300,000 capital stock, by R. G. Gallagher, Louisville, and R. E. Hollis, Shelbyville, Ky.)

N. C., Grandin (not a P. O.).—Watauga & Yadkin River R. R., H. C. Landon, Gen. Mgr., N. Wilkesboro, N. C., will, it is reported, erect hotel.

N. C., Hendersonville.—Summer Homes Colony of St. Petersburg, Fla., Mr. Potter, Rep., has plans by Meyer & Stillwell, Hen-

dersonville, for hotel; 3 stories; Mt. Vernon colonial style; 40 guestrooms.

S. C., Spartanburg.—J. N. Cudd and others reported to erect 7 to 10-story hotel to replace Argyle Hotel.

Tex., Houston.—Jesse H. Jones will erect 3-story building Dallas Ave. and Main St.; 125x100 ft.; mill construction; semi-fireproof; lower floor garage and automobile salesroom; upper floors hotel; cost \$50,000.

Va., Staunton.—T. J. Mosher and others reported as having plans prepared by T. J. Collins & Son, Staunton, for hotel Main and New Sts.; fireproof; 64,85x107.85 ft.; 6 stories; foundation to support 4 additional stories; roof garden; marble staircase; art glass dome over lobby; marble office, cigar and news counter and elevator inclosures; Turkish baths; 125 rooms; cost \$150,000.

Va., Wytheville.—C. N. Otey contemplates rebuilding Otey Hotel. (Lately noted burned.)

## MISCELLANEOUS

Ala., Birmingham.—Clubhouse.—Country Club will expend \$5000 to repair clubhouse Lakeview.

Ala., Gadsden.—Pavilion.—Gadsden, Bellevue & Lookout Mountain Ry. Co. will erect dancing and skating pavilion on Lookout Mountain; 100x100 ft.

D. C., Washington.—Stable.—Tulman Laundry, 491 C St. N. W., has plans by Milburn, Helster & Co., Union Savings Bank Bldg., for stable; brick; fireproof; reinforced steel construction; stone trimmings; concrete floors; cost \$30,000; S. J. Prescott, 514 13th St., lowest bidder. (Lately noted.)

Ga., Macon.—Hospital.—Mrs. F. M. Cunningham, W. C. Pumphely, C. C. Harrold, J. M. Sigman and others are promoting erection of hospital Coleman's Hill; cost about \$50,000.

Ga., Rome.—Hospital.—Floyd County Medical Society, Dr. W. J. Shaw, chmn. advisory board, plans campaign to raise \$30,000 to \$40,000 to establish hospital.

Tenn., Knoxville.—Stable.—Pryor Brown & Son will repair stable 312-24 W. Church St.; cost \$3000. (Lately noted burned.)

Tex., Victoria.—Restaurant.—Dennin Wilden is having plans prepared by Hull & Praeger, Victoria, for 2-story restaurant.

Va., Norfolk.—Clubhouse.—Hampton Roads Yacht Club will rebuild clubhouse reported burned; cost \$15,000.

W. Va., Beckley.—Hospital.—Beckley Hospital & Nurses' Training School, capital \$25,000, Incptd. by J. E. Coleman, Robt. Wriston and others.

## RAILWAY STATIONS, SHEDS, ETC.

Ala., Castleberry.—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky., will erect depot.

Ala., Pratt City.—St. Louis & San Francisco R. R. Co., V. K. Hendricks, engr., Springfield, Mo., will erect freight house; cost \$3500.

Fla., Lakeland.—Atlantic Coast Line Ry. Co., E. B. Plensants, Chief Engr., will erect brick freight station 50x225 ft., transfer shed 450 ft. long, 32-ft. macadamized driveway extending over 2 blocks, 4 additional miles sidetracks, etc.

Miss., Plantersville.—St. Louis & San Francisco Railroad Co., V. K. Hendricks, Engr., Springfield, Mo., will erect depot.

Okla., Oklahoma City.—Chicago, Rock Island & Pacific R. R., C. A. Morse, Ch. Engr., Chicago, will erect depot.

Tenn., Nashville.—Cumberland Valley R. R., J. W. Cartwright, Pres., Nashville, will establish 3 stations in vicinity of the Hermitage.

Tex., Dallas.—Southern Traction Co., J. F. Strickland, Pres., will erect baggage station; 1 story; brick; 100x200 ft.; also erect several baggage sheds.

W. Va., Parkersburg.—Baltimore & Ohio R. R., F. L. Steuart, Ch. Engr., Baltimore, will expend about \$500,000 to improve freight facilities; plans include erection of \$340,000 freight house, additional switches, etc.

## SCHOOLS

D. C., Washington.—Supt. National Training School for Girls, Conduit Rd., will receive bids until Sept. 22 to erect barn and warehouse and covered porch Administration Bldg.; J. Nota McGill, Pres. board of trustees.

Fla., Dunnellon.—Dunnellon Sub School District voted \$12,000 bonds to erect school. Address District School Trustees. (Previously noted.)

Fla., Fort Myers.—City voted \$35,000 bonds

for high school; J. W. Sherrill, Supt. Pub. Instruction. (Lately noted.)

Fla., Labelle.—City voted \$10,000 bonds to erect school; J. W. Sherrill, Supt. Pub. Instruction, Ft. Myers, Fla. (Lately noted at Ft. Myers, Fla.)

Fla., Ocala.—Ocala Special Tax District voted \$75,000 bonds for schools. Address District School Trustees. (Lately noted.)

Fla., Tampa.—College Hill Special School Tax Dist. voted \$13,000 bonds to erect 2 schools; Marshall Moore, Secy. Hillsboro Co. Bd. of Pub. Instruction. (Lately noted.)

Ky., Covington.—St. John's Church reported as having plans prepared for church and school. (See Churches.)

La., Westlake.—School Commrs., F. W. Hamilton, Supt., Lake Charles, open bids Sept. 25 to erect \$20,000 school; 60x127 ft.; mill construction; plans by E. W. Phillips, Lake Charles. (Lately noted rejecting bids.)

Md., Frederick.—Hood College opens bids about Oct. 1 to erect administration and office building; 153x44 and 50 ft.; part fireproof, part ordinary construction; direct steam heat; electric lighting; hand-power elevator; Peach bottom slate roof; cost \$60,000; John B. Hamme, Archt., York, Pa. (Lately noted.)

Miss., Starkville.—Young Men's Christian Assn. of Agricultural and Mechanical College opens bids Jan. 1 to erect building; floor area 6500 sq. ft.; tapestry brick; fireproof; reinforced concrete floors; steam heat; Barrett 5-ply and tile roof; cost \$55,000; plans by Overstreet & Spencer, Jackson, Miss.; lately noted. (See Machinery Wanted.)

N. C., Andrews.—Board of Trustees Andrews School Dist. receive bids as follows until Sept. 13 for school: (1) Excavating for basement and foundation (cents per cu. yd.); (2) concrete foundation for walls and pillars (per cu. yd.); (3) door and window frames set in walls and for joists and framing set in when foundation and walls are ready (bids for each frame and per 1000 ft. for other lumber); (4) laying up brick walls (per 1000 bricks in place); material supplied by trustees; plans and specifications at office D. S. Russell, Secy. of board; J. Q. Barker, Chmn. board. (Previously noted.)

N. C., Asheville.—School Board plans to erect building on Hill St.; cost \$30,000.

N. C., Brevard.—Brevard Institute will open bids Sept. 15 (change of date) to erect administration building; 50x130 ft.; 4 stories; ordinary construction; steam heat; cost \$25,000; plans by Sayre & Baldwin, Anderson, S. C. (Lately noted.)

Tenn., Alamo.—Alamo High School Bldg. Committee will receive bids until Sept. 15 to erect high school; plans at office Mayor, Alamo, and A. J. Biggs, Archt., Dyersburg. (Lately noted.)

Tenn., Memphis.—St. Agnes' Academy will erect annex Vance Ave.; contain study hall, chapel, gymnasium, etc.; cost \$70,000.

Tex., Fort Worth.—Tarrant County Common School Districts Nos. 18 and 95 voted \$5000 and \$7000 bonds, respectively, for schools. Address District School Trustees.

Va., Bristol.—City will erect school; plans being prepared. Address The Mayor. (Lately noted to vote on bonds for \$50,000 school.)

W. Va., Beverly.—Bd. of Education, Geo. E. Greynolds, Secy., will enlarge school; 65x35 ft.; ordinary construction; metal shingle roof; cost \$7500; bids opened Sept. 15; Holmboe & Lafferty, Archts., Clarksburg.

## STORES

Ala., Tuscaloosa.—R. H. Cochrane and C. C. Simpson will erect 2-story brick building.

Fla., Lake Hamilton.—J. W. Norman, Winter Haven, Fla., will erect 2-story building.

Ga., Atlanta.—Turman, Black & Calhoun will erect building 489-95 Peachtree St. for Mrs. E. C. Smith.

Ky., Hopkinsville.—Frankel's Busy Store is having plans prepared by Asmus & Norton, Nashville, Tenn., for alterations and additions to building; provide addition in rear; interior refitting and elevator; 3-story front of gray brick with insert panels of tapestry brick and stone trimmings.

Ky., Louisville.—Annie C. McDowell will erect show windows 404 S. 4th St.; cost \$3000.

Ky., Louisville.—S. P. Jones will erect brick addition 1330 3d St. and alter 300 S. 4th St.; cost \$13,000.

Ky., Pineville.—Wm. Jones will erect 2-story brick building.

La., New Orleans.—P. F. Montezin will

erect 2-story addition to brick building Esplanade and Dauphine Sts.

Md., Hagerstown.—Hy. C. Folts will erect 3-story store and office building Washington and Locust Sts.

Mo., Kansas City.—Charles E. Faeth of Faeth Iron Co. will erect 6-story steel and concrete building for Motor & Machinery Supply Co., 1519 Grand Ave.

Mo., St. Louis.—Aug. Hufnagle will erect store and dwelling 3138 Cherokee St.; 2 stories; cost \$4500.

Mo., St. Louis.—Jos. Venverloh will erect store and tenement. (See Apt. Houses.)

Mo., St. Louis.—Ernest Yoeman will erect store building Jennings Station Rd.

Mo., St. Louis.—Julius Bernacchi will erect store and apartment building Delmar Ave.

N. C., Salisbury.—V. Wallace & Sons will erect building.

N. C., Winston-Salem.—Melvin & Charles Hamlin will erect 2-story brick business building; 60x100 ft.

S. C., Anderson.—W. F. Cox and H. C. Townsend are reported to erect business buildings.

Tenn., Camden.—J. T. Lowry will erect building; brick.

Tenn., Columbia.—Robt. I. McKinney and W. P. Ridley will, it is reported, erect buildings to replace structures reported burned.

Tenn., Columbia.—Norman Kirkman, Nashville, will erect building to replace structure reported burned; cost \$10,000.

Tenn., Cookeville.—A. G. Maxwell and R. L. Farley are having plans prepared by Waller & Hinze, Nashville, for arcade building; 8 stores and 10 offices; 2 stories; steam heat; electric lights. (Lately noted.)

Tenn., Memphis.—J. H. Nunnally, Atlanta, will remodel building S. Main St.; reconstruct front, install fixtures, etc.

Tenn., Nashville.—Goodlett Realty Co. will improve Griffith House, Fourth Ave. and Commerce St.; install front 46x175 ft.; lower floor for stores; upper floors, apartments.

Tex., Altoga.—Watkins, Mantooth & Anderson contemplate rebuilding store. (Recently reported burned.)

Tex., Dallas.—J. and C. Paternostro will erect 2-story brick store and flats 2016 Leonard St.; cost \$7000.

Tex., El Paso.—Central Investment Co. will erect 1-story brick building; cost \$3500.

Tex., Greenville.—S. J. Brooks will erect building W. Lee St.; brick; 2 stories; 50x100 ft.

Tex., Houston.—John Kalb will erect 2-story brick building Preston and 9th Sts.; cost \$6700.

Tex., Houston.—Wolf Bros. have plans by Green & Finger for building Main St. and Aulita Ave.; 3 stories; brick; lower floor for stores; upper floors for two 5-room suites; steam heat; cost \$30,000.

Tex., Port Arthur.—C. D. Hill & Co., Sumpster Bldg., Dallas, are preparing plans for bank and store building; cost \$40,000.

Tex., Victoria.—Dennin Wilden is having plans prepared by Hull & Praeger for 2-story business building.

Va., Lynchburg.—J. C. Franklin will erect store building; 2 stories; brick; frontage 26 ft.

Va., Richmond.—J. D. Briggs will erect 2-story brick building 2318 Park Ave.; cost \$4500.

W. Va., Elkins.—R. L. Woodford will erect 2-story store and residence Randolph Ave.

W. Va., Charleston.—Kanawha National Bank and Frankenger estate open bids through Weber, Werner & Adkins, archts., Mercantile Library Bldg., Cincinnati, Sept. 24 to erect store, bank and office building; 67x126 ft.; 12 stories; fireproof; steam heat; probably electric lighting; asphalt roof; cost \$300,000. (Lately noted.)

## THEATERS

D. C., Washington.—S. Robbin, 1407 New York Ave., has plans B. F. Meyers for 1-story brick theater 513 C St. N. E.; cost \$6500.

D. C., Washington.—J. R. Sherwood, 905 Louisiana Ave. N. W., will erect moving-picture theater 104-108 Rhode Island Ave. N. W., under supervision Jos. A. Jennings; brick; concrete foundation; 1 story; 72x77 ft.; cost \$16,000; Nicholas T. Haller, Archt., Corcoran Bldg.

Ga., Atlanta.—Montgomery Theater will add to and alter theater 87 Peachtree St.; cost \$3000; day labor.

Okla., Tulsa.—Wm. Smith, owner of Cozy Theater, leased World Bldg. and is having



plans prepared by Carl Boller, Kansas City, Mo., to remodel for theater; will utilize two floors and provide ceiling 40 ft. high; cement floor; vacuum cleaner; stage 22x60 ft. with proscenium opening 35 ft.; balcony to seat 450; lower floor to seat 550; cost \$10,000.

### WAREHOUSES

La., New Orleans.—Terminal Oil Co. will erect building; 2 stories; frame; cost \$300.

Md., Baltimore.—Arthur Boehm, 297 St. Paul St., is having plans prepared by Geo. R. Morris, 45 Gunther Bldg., to alter and improve 4-story warehouse 409 Exchange Pl.; install electric lights, electric freight elevator, etc.

Md., Baltimore.—Novelty Steam Boiler Works, 917-29 S. Howard St., will erect warehouse S. Howard St.; brick construction; steel work; slag roof; electric lights; concrete foundation; contractors estimating; Henry S. Rippel, 7 Clay St.; Fidelity Construction Co., Knickerbocker Bldg.; J. L. Robinson Construction Co., Knickerbocker Bldg.; Edw. Watters & Co., 509 N. Charles St.; F. E. Beall, Archt., 306 St. Paul St.; bids received until Sept. 10.

S. C., Columbia.—Kirkland Distributing Co. and Jones & Germany have plans by Geo. E. Lafaye for double warehouse building; former company's part 75x80 ft.; cost \$18,000; latter 75x120 ft.; mill construction; exterior of pressed brick and stone; automatic sprinkler system; electric elevators; doors equipped with automatic steel shutters.

Tenn., Nashville.—Robertson & McGill will erect brick warehouse; cost \$5000.

Tenn., Nashville.—Castner-Knott Co., J. D. Barnett, Mgr. and V.P., will rebuild warehouse and erect additional story to provide 10,000 sq. ft. additional storing space; cost \$15,000; Asmus & Norton, Archts., Nashville. (Lately noted burned.)

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

D. C., Washington.—John H. Nolan, 1413 G St. N. W., has contract to erect apartment-house V St. between 14th and 15th Sts. N. W.; 4 stories; 24 suites of 3 and 4 rooms; pressed brick; stone trimmings; fireproof; F. R. White & Co., Archts., 1701 Park Rd. N. W.

Mo., Kansas City.—Frank Wolf let contract F. Dahlstrom to erect apartment-house 1014-1016 Forest Ave.; 23 suites; 3 stories; brick; cost \$22,000; E. O. Brostrom, archt., 1113 McGee St.

Tex., Fort Worth.—A. J. Sandegard let contract to erect apartment-house, etc. (See Stores.)

Tex., Houston.—John Kaib let contract A. T. Schmitz & Son to erect store and apartment-house Preston Ave. and 9th St.; 2 stories; brick; cost \$10,000; Teich & Gideon, Archts.

### ASSOCIATION AND FRATERNAL

Ala., Tuscaloosa.—Phi Gamma Delta Fraternity let contract James Abbott, Tuscaloosa, to erect fraternity-house; 8 rooms; attic and basement; cost \$10,500.

Va., Bedford City.—Benevolent and Protective Order of Elks let contract P. J. Moran, Salt Lake City, to erect home; 9 buildings, covering space 700x700 ft.; fireproof; low pressure vacuum system; electric lighting; tile and composition roof; cost \$300,000; plans by Ottenheimer, Stern & Reichert, 105 W. Monroe St., Chicago. (Previously noted.)

### BANK AND OFFICE

Ark., Little Rock.—Bankers' Trust Co. let contract Geo. W. Donaghy to erect bank and office building; 3 stories; 50x140 ft.; fireproof; cost \$60,000; plans by Chas. L. Thompson. (Lately noted.)

D. C., Washington.—W. H. Walker and O. H. P. Johnson let contract Boyle-Robertson Construction Co., Union Trust Bldg., to erect building to be occupied by Navy Dept.; 130x100 ft.; 9 stories; brick; white stone base; belt course of Indiana limestone; polychrome terra-cotta trimmings; flat overhanging roof; marble flooring in lobby; three elevators; reported cost, \$350,000; Waddy B. Wood, Archt., 816 Connecticut Ave. (Previously noted.)

Fla., Gainesville.—Phifer State Bank let contract Franz Safe & Lock Co., Jacksonville, for vault equipment consisting of linings, doors, safes and deposit boxes. (Recently noted.)

Fla., New Smyrna.—John McCormick let contract to erect office and store building. (See Stores.)

Md., Frederick.—C. E. Cline let contract H. M. Gittinger to erect building for People's State Bank; 31x55 ft.; ordinary construction; steam heat; plans by B. Evard Kepner. (See Machinery Wanted.)

### CHURCHES

Md., Baltimore.—St. Michaels' Russian-Greek Catholic Church let contract L. Schoenlein, 2217 E. Baltimore St., to erect building 520-22 S. Wolfe St.; 1 story; brick; 20x72 ft.; cost \$6000; A. Schoenlein, Archt., 2217 E. Baltimore St.

Md., Govans.—Chapel of the Nativity let contract Wm. Houck to erect building; 64x25 ft.; transepts 65 ft. wide; mill construction; hot-air heat; electric lighting; slate roof.

S. C., Greenville.—Tabernacle Baptist Church, Rev. A. R. Burke, pastor, has plans

by and let contract H. Mosely, Jenkin St., to erect building; 50x55 ft.; fireproof; veneer; metal roof; cost \$3000. (Lately noted.)

Tenn., Lebanon.—Methodist Episcopal Church will expend \$12,500 to erect building; steam heat; electric lighting; composition roof; plans by Hart & Garden, Stahlman Bldg., Nashville; additional cost seating and furnishing, \$2000. (Contract lately noted let to W. S. Page.)

### CITY AND COUNTY

N. C., Raleigh.—Hospital.—Wake County Comms. let contract at \$71,875 to M. A. Moser, Raleigh, to erect hospital, and at \$5025 to Raleigh Iron Works Co. for heating; plans by C. E. Hartge, Raleigh. (Lately noted.)

S. C., Columbia.—Jail.—Richland County Comms. let contract at \$42,475 to John J. Cain Construction Co. to erect jail, and at \$7075 to W. B. Gularin & Co. for heating and plumbing; 80x38x90x35 ft.; reinforced concrete; low-pressure steam heat; electric lights; Barrett specification roofing on concrete; plans by Hamby & Rorke; contract for steel cell work, window guards, etc., let to Van Dorn Iron Works Co., Cleveland, O. (Lately noted.)

Tex., Austin.—Hospital.—City let contracts to erect hospital; A. A. Mundt, general contract; Donnelly & White, plumbing and heating; E. Hancock & Co., electrical work; Otis Elevator Co., elevator; brick, stone and concrete; H. B. Thompson, Dallas, and Leslie N. Ireland, 522 Littleton Bldg., Austin, Archts. (Lately noted.)

Va., Eastville.—Jail.—Northampton County Supvs. let contract Camden Iron Works, Salem, Va., to erect jail; 2 stories; 48 cells; steam heat; brick. (Lately noted.)

Va., Richmond.—Jail.—City let contract at \$1500 to C. Manning Plumbing Co. for plumbing jail. (Lately noted.)

### COURTHOUSES

W. Va., Moorefield.—Hardy County Comms. let contract at \$26,500 King Lumber Co., Charlottesville, Va., for interior finish to courthouse; let contract for heating plant F. C. Bartley, Cumberland, Md.; Milburn, Heister & Co., Archts., Union Natl. Bank Bldg., Washington, D. C. (Previously noted.)

### DWELLINGS

Ala., Birmingham.—Tennessee Coal, Iron & Railroad Co. let contract Crotwell Lumber Co. to erect 100 dwellings at Edgewater.

D. C., Washington.—Chas. E. Wire, 1413 H St. N. W., let contract J. F. Mills & Bro., 904 Shepherd St. N. W., to erect 2-story frame dwelling 5603 14th St. N. W.; cost \$6000.

D. C., Washington.—Chas. E. Edgerton, 2852 Ontario Rd. N. W., has plans by and let contract Chas. M. Lightbown to erect 2-story frame dwelling 3900 Albemarle St. N. W.; cost \$4500.

D. C., Washington.—J. S. Tyree, 15th and H Sts. N. E., let contract J. C. Yost, 715 9th St. N. E., to erect three 2-story dwellings Eastern Ave. and 63d St.; cost \$7500; H. V. O'Brien, Archt., 319 B St. N. E.

D. C., Washington.—N. S. Lingamfelter, 1338 Irving St. N. W., has plans by and let contract H. D. Fulmer, 3825 Legation St. N. W., to erect 2-story tile dwelling 3912 Morrison St.; cost \$4500.

D. C., Washington.—Capt. Harry Lemly, Stoneleigh Court, let contract John H. Nolan, 1413 G St. N. W., to erect residence 2112

Leroy Pl.; 25x70 ft.; French Renaissance style; stone and brick; Indiana limestone trimmings; slate roof; wrought-iron stairways; elevator; cost \$25,000; T. J. D. Fuller, 906 17th St. N. W., Archt.

Fla., Fort Myers.—Kinzie Bros. let contract E. Strickland to erect 2 cottages.

Fla., Fort Myers.—Mr. Falls let contract E. Strickland to erect 2-story residence.

Fla., Fort Myers.—H. W. Henderson let contract T. H. Huggins to erect bungalow.

Fla., Fort Myers.—W. A. Miller let contract T. H. Huggins to erect 2-story residence.

Fla., Fort Myers.—S. E. Pool let contract W. P. Henley to erect bungalow.

Fla., Fort Myers.—J. L. Lutkins let contract L. H. Kennedy to erect 2 cottages Park Ave.

Fla., Lake Hamilton.—W. J. Richards, Rockfort, Ind., is reported, let contract to erect residence.

Fla., Lakeland.—Mr. Slager let contract Marshall & Sanders to erect residence South Florida Ave.

Fla., Tampa.—Chas. R. Hall let contract to erect 10 dwellings West Central Ave.; cost \$30,000.

Md., Little Louna (not a postoffice).—Wm. N. Bryant let contract Willard E. Harn Co., 213 N. Calvert St., Baltimore, to erect residence; 51x71 ft., ordinary construction; vapor heating; electric lights; cypress shingle roof; cost \$13,000; plans by Wyatt & Nolting, Keyser Bldg., Baltimore. (Lately noted.)

N. C., Winston-Salem.—W. Ray Johnson let contract Jas. E. Kennerly to erect residence; 8 rooms; 2 stories; Willard C. Northrup, Archt., Winston-Salem.

N. C., Winston-Salem.—Mrs. J. L. Casper let contract Charles Loman to erect two 2-story 10-room dwellings Liberty St.; cost \$5000.

N. C., Winston-Salem.—Chas. Dobbins let contract J. H. Grubbs to erect two 5-room cottages Woodland Ave. and 2d St.

N. C., Winston-Salem.—Dr. O. A. Apple awarded contract Paul L. Miller to erect residence; 8 rooms and basement; frame; electric and gas lighting; shingle roof; colonial design; cost \$5000; plans by W. C. Northrup.

N. C., Charlotte.—Ralph Bougligny let contract H. E. Garrison to erect bungalow at Dilworth.

Tenn., Knoxville.—Dr. S. H. Keener, Box 741, let contract J. M. Dunn to erect residence; 10 rooms; ordinary construction; hot-air heat; slate roof; cost \$5000. (Lately noted.)

Tenn., Memphis.—L. T. Heskell let contract J. C. Jones to erect dwelling; 2 stories; 10 rooms; tile walls; steam heat; green Spanish tile roof; cost \$14,000; plans by John Galsford. (Lately noted.)

Tex., Houston.—C. C. Smith, care of Kirby Lumber Co., let contract O. A. Coons Building Co. to erect residence; cost \$4000; shingle roof; plans by J. P. Murphy. (Lately noted.)

Tex., Marfa.—Dr. M. R. Mahon let contract C. L. Simmons to erect two 5-room concrete dwellings.

Tex., Victoria.—Miss Sophie Wertheimer let contract Bailey Mills Co. to erect 3 residences; 1 story; cost \$6000; plans by Hull & Praeger.

Va., Buchanan.—Dr. E. W. Dodd let contract A. J. Miller to erect residence.

Va., Richmond.—W. E. Roan let contract Davis & Archer to erect 2-story brick dwelling; tin roof; cost \$3750.

Va., Richmond.—J. W. Lester let contract Henrice Contracting & Realty Corp. to erect 2-story brick dwelling; tin roof; cost \$5500.

Va., Roanoke.—Chas. J. Richardson, 1201 Staunton Ave. N. W., let contract H. E. Hayden, Sixth Ave. N. W., to erect dwellings lately noted; 10 rooms, 2 bathrooms; ordinary construction; electric lights; Buckingham slate roof; cost \$5000. (See Machinery Wanted.)

W. Va., Panther.—Lathrop Coal Co. let contract John W. Doss, Welch, W. Va., to erect 10 dwellings for miners. (See Coal and Coke.)

### GOVERNMENT AND STATE

Tenn., Lebanon.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., let contract at \$46,827 to James Corse, Racine, Wis., to erect post-office. (Lately noted.)

W. Va., Wheeling.—Lockkeepers' Houses.—Maj. F. W. Alstaetter, Corps. Engrs., U. S. A., let contract T. A. Gillespie Co. to erect two 7-room 2-story lockkeepers' houses at

dams 16 and 17, Ohio River. (Previously noted.)

### HOTELS

D. C., Washington.—Hotel Harris, 15-19 Massachusetts Ave. N. W., let contract Boryer & Smith, 214 12th St. N. W., to erect addition to hotel; 5 stories; 29 bedrooms and 16 baths; lower floor for store, basement for barber shop, with tiled walls and ceilings, shower baths, etc.; pressed brick; Indiana limestone trimmings; wrought-iron balconies; frontage 25 ft.; fireproof; concrete floors; partitions of hollow tile; cost \$26,200; all subcontracts let; plans by A. B. Mullett & Co., Union Trust Bldg.

Ky., Louisville.—Seelbach Realty Co. let contract Ragland-Baxter-Morford Co., Nashville, Tenn., to erect annex to Seelbach Hotel; 11 stories; fireproof; steel construction; 32x100 ft.; cost \$100,000; H. E. Kennedy & Co., Archts., Pittsburgh, Pa. (Lately noted.)

Tex., Victoria.—William Soller let contract Wagner & Keese to erect hotel; 3 stories; frame; 21 rooms; 43x84 ft.; cost \$7500; plans by Sam H. Dixon.

### MISCELLANEOUS

Ala., Birmingham.—Auditorium.—Gypsy Smith Auditorium Co., F. M. Jackson, Chrm. Bldg. Com., 113 21st St., has plans by Miller & Martin for building; seating capacity 900; let contract Morris & Perkinson for construction. (Lately noted.)

Ark., Little Rock.—Fair.—Pulaski County Fair Association, Joe Asher, Pres., let contract Geo. Leifer to erect four exhibit buildings West End Park; F. N. Blaisdell, Archt., Little Rock. (Lately noted.)

Ga., Albany.—Clubhouse.—Albany Country Club let contract R. S. Smith, Albany, to erect clubhouse; 1 and 2 stories; brick and frame; sides of rough planks; tiled porch floor; cost \$8000; Chas. Edw. Choate, Archt., Atlanta.

Ky., Dawson Springs.—Bathhouse.—F. M. Fisher and others let contract to Dalton Bros. for brick work on bathhouse and sanatorium; 50x110 ft.; 3 stories; ordinary construction; hot water or steam heat; fireproof roof; cost \$30,000; date of opening bids for other contracts not set.

Mo., Kansas City.—Racing Plant, etc.—R. A. Long, R. A. Long Bldg., let contract Lonsdale Bros., Bryant Bldg., to erect second group of buildings for Longview Farm, including power plant; steam and hot water heat; electric lighting; the roof; plans by Henry F. Holt, 315 E. 10th St.; 9 buildings under construction. (Previously noted.)

Okla., Tulsa.—Fair.—International Dry Farming Congress Exposition let contract W. I. Harris to erect 5 additional buildings; United States Government Bldg., 160x165 ft., 5700 ft. floor space, equipped with 25 H. P. electrical current; Canadian Government and Provincial Bldg., 160x165 ft., 11,000 sq. ft. floor space; Oklahoma Home Products and Mineral Palace, 60x165 ft.; Railroad and States Exhibits Bldg.; Afro-American Bldg.; frame; cost \$14,000. (Lately noted.)

Tex., Dallas.—Hospital.—Texas Baptist Sanatorium, J. B. Franklin, Supt., let contract to erect additional building; 3 stories; fireproof; cost \$30,000; plans by C. W. Bulger & Son, Fractorian Bldg.; will also erect \$100,000 nurses' home. (Lately noted.)

### RAILWAY STATIONS, SHEDS, ETC.

Mo., Joplin.—Joplin Union Station Co. reported to have let contract at \$62,500 to erect proposed train sheds Union Station; midway train shelter for passengers, 110x30 ft.; concrete and steel; another train shed 62x35 ft.; also let contract for draining passenger yards and installing plumbing.

Okla., Antlers.—St. Louis & San Francisco R. R., V. K. Hendricks, Asst. Engr., Springfield, Mo., let contract W. J. McCully, St. Louis, to erect passenger station; composition roof; cost \$8500; plans by R. C. Stephens, 619 Frisco Bldg., St. Louis, Mo. (Previously noted.)

### SCHOOLS

Ky., Lexington.—Trustees of St. Paul's Church let contracts to erect school as follows: Central Construction Co., general contract; McElhone & Maloney, plumbing; J. J. Fitzgerald, heating; Moore-Young Co., electric lighting; Blitteman & Son, roofing and galvanized work; Justice & Co., cement; Geo. A. Beckett, brick work; T. G. Foster, plastering; Sturges & Jones, painting and glazing; Williamson & Sons, carpenter work; plans by Smith & Bedford, call for structure 129x60 ft.; 2 stories and basement; vacuum cleaning system; gas and electric lights; steam heat; drinking foun-

tain each floor; classrooms glass on one side; cost \$30,000. (Lately noted.)

La., Covington.—St. Tammany's Parish School Board let contracts to erect high school; general contract \$28,362. Chas. Jenkins, Covington; heating, plumbing and electric work, \$3275. H. N. Moody, New Orleans; 2 stories; brick; 14 rooms and auditorium; Nolan & Torre, Archts., New Orleans. (Lately noted.)

N. C., Wake Forest.—Wake Forest College, W. L. McMichael, Supt., let contract for foundation for dormitory; 200x29 ft.; 3 stories; ordinary construction; low-pressure steam heat; electric lighting; slate or asbestos roof; cost \$20,000; materials not purchased; heating, lighting and plumbing contracts let separately. (Previously noted.)

S. C., Anderson.—J. A. Brock, Chmn., Trustees, let contract at \$14,980 to Jordan-Munn Construction Co., Greenville, to erect Kennedy Street school; red brick; tin roof; steam heat; at \$4485 J. L. Hembree to erect E. Whitner Street school; 1 story; colonial style; brick veneer; tin roof; plans by J. H. Casey; recently noted. (See Machinery Wanted.)

Tex., Floresville.—City let contract Little & Varnon to erect proposed school; frame.

Tex., San Antonio.—School Board let contract \$15,310 Pasqual Falbo to erect addition Main Avenue High School; 4 rooms and basement; brick; at \$7679 West & Gutzeit for plumbing. (Lately noted.)

Tex., Comanche.—School Board let contract Chas. Oats to erect school; 2 stories; brick and concrete; 60x72 ft.; cost \$10,000; Walter E. Taylor, Archt., Box 635, Ft. Worth. (Lately noted.)

### STORES

Ark.-Tex., Texarkana.—J. W. Day let contract J. W. Miller to erect brick business building.

Ark.-Tex., Texarkana.—J. W. Miller has contract to erect brick business building.

D. C., Washington.—Hotel Harris, 15-19 Massachusetts Ave. N. W., let contract to erect addition to hotel; lower floor for stores. (See Hotels.)

D. C., Washington.—Palais Royal will expend \$100,000 to erect 60x100 ft. fireproof addition to building; heating and lighting extension of present system; 2 plunger elevators; slag roof; sprinkler and cash systems; plans by Geo. P. Hales, Dist. Natl. Bank Bldg.; contract let P. F. Gormley Co., Union Trust Bldg. (Previously noted.)

D. C., Washington.—Harry Kauffman, 607 Columbia Rd. N. W., let contract John Brennan, 1746 Lanier Pl. to repair 2 stores 1316-18 7th St. N. W.; cost \$6400; plans Snowden Ashford, 918 17th St. N. W.

D. C., Washington.—Ellen Lynaugh let contract I. J. Brinkley to erect 2-story store and flat 1339 C St. S. E.; cost \$9000; plans Julius Wenig, 717 10th St. N. W.

D. C., Washington.—Elie Sheetz, 505 12th St., let contract Wm. H. Turton, 1144 18th St. N. W., to repair store 507 12th St.; cost \$5700.

Fla., New Smyrna.—John McCormick let contract Wm. Lopes to erect store and office building; 20x80 ft.; brick; felt roof; cost \$3000. (Lately noted.)

La., Lake Charles.—Helsig-Norvell Grocery Co. let contract at \$239.55 to Miller & Ory, Lake Charles, to erect store building; brick; 1 story; 100x100 ft.

Miss., Tutwiler.—Dr. W. H. Harrison let contract Wm. Edwards to erect 2 stores; 15x80 and 35x80 ft.; fireproof; electric lighting; hand elevator; Carey's roofing; cost \$10,000; plans by M. M. Alost, Houston, Miss. (Recently noted.)

S. C., Gaffney.—Thos. Cole let contract L. Baker to erect brick store.

S. C., Pendleton.—J. R. Vandiver, Anderson, S. C., let contract J. L. Masters, Anderson, to erect 3 storerooms; 23½x35 ft.; pressed brick; plate-glass fronts.

Tenn., Memphis.—C. F. Farnsworth let contract Nunnally Co. to improve building 67 S. Main St.; cost \$7000.

Tenn., Nashville.—E. B. Stephenson of Terminals Co. let contract J. M. Robinson & Co. to erect 1-story building to be occupied by Agerton & Robertson Co.; 50x150 ft.; white enameled brick front; Bowling Green stone trimmings; plans by C. K. Colley.

Tex., Fort Worth.—A. J. Sandegard let contract E. F. Moore to erect auto salesroom and department building; 75x100 ft.; 3 stories; mill construction; gas heat; electric lighting; gravel roof; cost \$40,000; plans by L. B. Weisman. (Recently noted.)

Tex., Mission.—Hayes-Sammons Co. let contract to erect brick building.

### THEATERS

Fla., Starke.—J. T. Quigley has contract to erect moving-picture theater to be occupied by Hopson Theater Co.; 30x16 ft.

Va., Norton.—J. Cohen will expend \$8000 to erect theater; 25x130 ft.; fireproof; hot-water heat; contract recently noted let. (See Machinery Wanted.)

### WAREHOUSES

Ga., Greensboro.—J. R. Spinks let contract J. D. Witcher, Maxeys, Ga. to erect warehouse; brick; 50x100 ft.

Md., Baltimore.—Edward L. Ward, 809 Fidelity Bldg., let contract Consolidated Engineering Co., Gunther Bldg., to erect warehouse 410-14 S. Hanover St.; 6 stories; mill construction; 81x120 ft.; cost \$90,000; to be

occupied by Heyward Bros. & Wakefield. (Previously noted.)

Tex., Fredericksburg.—Oppenheimer Grocer Co. let contract Webber Bros. to erect warehouse; 50x100 ft.; fireproof; patent roofing; cost \$5000; elevator, \$1500; plans by E. cost \$5000; elevator, \$1500; plans by E. P. Behles, San Antonio. (Lately noted.)

Tex., Victoria.—Harding & Parker let contract Bailey Mills Co., Victoria, to erect galvanized-iron warehouse.

Va., Norfolk.—Talbot Bros. will erect warehouse; 75x120 ft.; mill construction; steam heat; electric wiring; 1 electric and 2 hand-power freight elevators; gravel roof; plans by J. Kevan Peebles; contract let Jesse Johnson. (Lately noted to cost \$55,000.)

## RAILROAD CONSTRUCTION

### RAILWAYS

Ala., Mobile.—Dauphin Island, below Mobile, has been bought by the Tidewater Securities Corp., J. M. Dewberry, Brown-Marx Bldg., Birmingham, Prest., which will build terminal railroad and other improvements.

Ala., Mobile.—Mobile Electric Co. will apply Sept. 30 for franchise to build railroad spur from connection with Mobile & Ohio R. R. near Royal St., thence west along St. Louis St. to the parkway along the sidewalk and to the property of the electric company nearby.

Ark., Mountainburg.—George G. Stockard denies report that railroad construction is proposed, but only automobile and wagon road.

Fla., Pensacola.—Louisville & Nashville R. R. will build yard tracks on site of old passenger depot, which is being removed by A. R. Bingham, contr. L. I. Smith is asst. engr. at Pensacola.

Fla., Pensacola.—McBeath & Miller, Meridian, Miss., advise that Memphis & Pensacola R. R. Co. proposes to build 450 mi. Memphis to Pensacola via Meridian, W. P. Dickinson, 135 LaSalle St., Chicago, being contractor. John Clancy, Chicago, is Prest., and J. H. Sullivan, Memphis, Secy. A report from Pensacola says that W. W. Hayden of Memphis, Chief Engr., will revise survey between Pensacola and Bay Minette, and that Byron H. Joy, in charge of construction, has office in the Blount Bldg. at Pensacola. He is quoted saying Charles Merritt is contractor.

Ga., Augusta.—Franchise has been granted to the Atlanta & Carolina Construction Co., represented by Matthew Mason of Atlanta, to enter Augusta with its projected interurban railway, on which 15 mi. have been graded out of Atlanta and about 4 mi. of track laid. Construction is soon to be resumed. Proposed line will be from 175 to 200 mi. long, as heretofore noted.

Ga., Augusta.—Announced construction will begin in about 30 days on the Carolina & Georgia Interurban Ry. Route from Graniteville, S. C., has been selected via Trenton and Johnston, with branch from Johnston to Greenwood. An increase from \$2,000,000 to \$3,000,000 in the bond issue was authorized by the directors. James U. Jackson of Augusta is prest.; Michael P. McGrath, contr., and G. E. Shand, Columbia, S. C., ch. engr. J. A. Loft and J. M. Cranston are elected directors. Road will be about 110 mi. Augusta to Columbia and Greenwood, S. C., via Johnston. Mr. McGrath's address is 17 Battery Place, New York.

Ky., Lexington.—The Louisville & Nashville R. R. denies a recent press report that it would double-track its main line from Lexington to Bryan's Station and also build a double-track connection from Bryan's to its Lexington & Eastern division.

Ky., Madisonville.—Plans for an electric railway from Madisonville to Nortonville, 12 mi., are reported again on foot. B. T. Robinson and W. W. Kingston were previously reported concerned. The Mayor at Madisonville may give information.

Ky., Smithland.—Electric line in which J. E. Massey and J. B. Trail of Smithland were reported interested is that of the Kentucky Southwestern Electric Ry., Light & Power Co., of which Mr. Trail is a director. F. M. Smith is gen. mgr. and contr., and Maj. W. A. Calhoun ch. engr., both at Paducah, Ky. Projected line is 205 miles Paducah to Henderson via Smithland, Hampton, Lola, Salem, Marlon and Sturgis.

Ky., Whitesburg.—Louisville & Nashville R. R. is reported awarded contract to Adams & Sullivan Construction Co. to build Rockhouse Creek branch of the Lexington & Eastern Ry. from Blackey up the creek 18 mi. to a point 2 mi. above Deane, reaching mines of the Mineral Fuel Co.

La., Alexandria.—T. C. Lawless, Prest. Alexandria & Western Railway, is quoted saying about 20 mi. will be ready for operation in a month; also that an extension will be made via Fullerton to De Ridder or else direct to Leesville. Address, Garden City.

La., Monroe.—L'Outre R. R. Co. authorized capital \$250,000, reported charter filed to become effective on subscription of \$700. Route from Bayou L'Outre near Loch Lomond to Sterlington; thence northeast to Arkansas City, Ark., about 100 mi. Directors, Frank R. Pierce, Prest.; Frank P. Stubbs, Jr., V.-P.; Adolph Wolf, Secy.; Leonard Bradt, Treas.; W. B. Ayars, John C. Theus and Henry H. Russell, nearly all of Monroe.

N. C., High Point.—Carolina & Yadkin River Ry. extension is completed to High Point and put in operation. Bird S. Coler, 43 Cedar St., New York, is Prest.

Okla., Tulsa.—John T. Fitzgerald of Cleveland, O., Ch. Engr. Oklahoma & Texas Pacific Ry. Co., is reported surveying in Nowata county, and negotiations for construction are proceeding. Prest. W. E. Hawley of Tulsa is quoted saying that construction is to begin within 3 months. Other officers are: C. H. Cleveland of Skiatook, Okla., 1st V.-P.; Edward E. Edge, Cleveland, O., 2d V.-P.; C. L. Hounker, Tulsa, Secy.-Treas.; Treas.; W. J. Carnes, Cleveland, O., Chmn. finance committee; Curry & Spillers, counsel.

S. C., Greenville.—Greenville, Spartanburg & Anderson Ry. has voted \$2,500,000 increase of capital stock, making total \$7,500,000. An extension from Spartanburg, S. C., to Gastonia, N. C., remains to be built, although it is not stated that it is to be undertaken at present. W. S. Lee, Charlotte, N. C., is V.-P.

Tex., Austin.—The State Penitentiary Board is reported laying track on its 5½ mi. branch from the Ramsey State Farm to Bonney Station, connecting with the International & Great Northern R. R., the line to be completed by October.

Tex., Beaumont.—Track on the Beaumont & Port Arthur Interurban Ry. has been connected up and ballasting is proceeding, with expectation that line will be in operation by Nov. 1. C. W. Kellogg, Beaumont is gen. mgr. for Stone & Webster.

Tex., Dallas.—Murrell L. Buckner, Secy., Dallas Union Terminal Co., is quoted saying that contracts for the new station and terminal tracks to cost about \$5,000,000 will be let soon. Contractors have gone over plans and specifications. Site is acquired.

Tex., Dallas.—An officer of the Dallas, Corsicana & Palestine Ry. Co. is quoted saying that the grading will require handling 30,000 cu. yds. of material per mile. Maximum grades 1 per cent. and maximum curve 4 degrees. H. Hedberg, Dallas, Tex., is Ch. Engr., and L. E. Mitchell, Neosho, Mo., is Prest.

Tex., El Paso.—El Paso & Ysleta Interurban

Ry. completed and begun operation; 12 mi. Stone & Webster, Boston and Dallas, are managers.

Tex., Fairfield.—Woolsey Fennell, Tuscaloosa, Ala., is Ch. Engr. for the proposed Dallas, Fairfield & Gulf R. R. from Dallas via Ferris to connect with the International & Great Northern R. R. Date for contracts not yet set. T. J. Alexander, Teague, Tex., is Prest.

Tex., Gainesville.—Efforts to finance the proposed interurban railway to connect Gainesville, Whitesboro and Sherman are reported under way. T. F. Macmillan of Chicago is interested. J. W. Blanton of Gainesville may give information.

Tex., Independence.—Thos. H. Shannon of Independence is reported promoting plan for an extension of the Bryan & Central Texas Interurban Railway from its proposed terminus at Wilcox via Clay and Independence to Brenham, about 25 miles more. W. E. Saunders is Prest. Already 23 miles of grade are reported built on the line between Bryan and Wilcox, 32 miles, 12 of which are being operated.

Va., Richmond.—The Richmond, Fredericksburg & Potomac R. R. Co., according to a local report, contemplates improvements, W. D. Duke is Asst. to the Prest.

Tex., Sherman.—The Texas Traction Co. of Dallas denies the recent press report that it contemplates an extension from Sherman to Anadarko, Okla.

Va., Richmond.—Callahan Construction Co. of Knoxville, Tenn., is grading the addition to the South Richmond yards of the Southern Ry., and about 20,000 cu. yds. of material have been dumped in the fill, on which will be laid more yard tracks. H. P. Bayly is Asst. Engr.

W. Va., Northfork.—Officers of the Elkhorn Valley Traction Co., recently chartered with \$100,000 capital stock, are Col. L. E. Tierney, Prest., Powhatan; W. E. Stewart, V.-P., Keystone; Dr. L. H. Clark, Treas., Kyle; C. C. Haie, Secy., Keystone; A. Catzen, Gen. Mgr., Northfork. Main office at Clark (P. O. Northfork, W. Va.) Franchise through corporate limits of Clark and Keystone, about 5 miles. Now preparing grade for tracklaying, and expected to operate cars by May next at latest.

W. Va., Parkersburg.—The Baltimore & Ohio R. R. proposes to build a new freight depot, together with some additional yard tracks therefor. F. L. Stuart, Baltimore, is Ch. Engr.

W. Va., Princeton.—Reported that construction will begin by Oct. 1 on the proposed electric railway from Princeton to Bluefield projected by S. J. Evans, Prest. Princeton Power Co., and J. J. Hoge. George H. Hill is Engr.

W. Va., Williamson.—Williamson & Pond Creek R. R. Co. says the recent press report of a proposed extension is erroneous.

### STREET RAILWAYS

Fla., Bradenton.—C. A. Matson has been granted franchise for street railway with suburban lines to Manatee and Braden Castle, another on the Palma Sola Peninsula and a third to Cortez.

Tenn., Jackson.—Jackson Ry. & Light Co. proposes to build an extension of its street railway. S. S. Bush is V.-P. and Gen. Mgr.

Tenn., Johnson City.—Tennessee Eastern Electric Co. is extending railway 1 mi. to the Carnegie furnace.

Tex., Texas City.—Texas City St. Ry. completed and begun service Sept. 1. Line 2½ mi. Extension may be made.

Tex., Tyler.—Street railway of Tyler Traction Co. will be 7 mi. long, and Daniel Hewitt, Prest., is quoted saying 2 mi. will be ready and operated in three weeks, track-laying having begun.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

Air Compressor.—See Pumps, etc., Isthmian Canal Com.

Air Compressor.—Raleigh Iron Works Co., Raleigh, N. C.—Prices on second-hand belt or motor driven air compressor, 150 cu. ft. per min. capacity.

Asphalt Plant.—R. M. Hudson, 1507 Empire Bldg., Atlanta, Ga.—Prices on asphalt plant.

Asphalt Plant.—Wm. Pannill, 1512 Candler Bldg., Atlanta, Ga.—One car portable asphalt plant.



**Bagging and Ties.**—J. G. White, Grover, N. C.—Prices on new or second-hand bagging and ties.

**Baling Press.**—Wm. Seymour, 5117 Hibbard Ave., Chicago, Ill.—Baling press, belt or electric power, for standard-size bale.

**Bank Fixtures, etc.**—C. E. Cline, Frederick, Md.—Prices on bank fixtures, safe and vault.

**Bank Fixtures, etc.**—First National Bank, Ringling, Okla.—Prices on bank fixtures, safe and vault.

**Barrels.**—J. F. Stebbins, Zephyrhills, Fla.—To correspond with manufacturers of syrup and vinegar bbls.; Southern preferred.

**Bicycle and Motor Supplies.**—See Tools, etc.

**Bottles.**—T. Takami, Box 95, Pablo Beach, Fla.—Addresses of manufacturers of glass bottles (in Florida or Georgia preferred).

**Boring Machinery.**—Russell Mfg. Co., Alexander City, Ala.—Uses solid wood rolls 6 ft., 2 in. long, 9 and 12 in. diam.; rolls have 1 15-16 in. iron shaft through them and projecting on each end; wants machinery to bore holes for shafting and "for turning rolls down true."

**Bowling Alley Equipment.**—Overstreet & Spencer, Jackson, Miss.—Prices on bowling alley equipment for Agricultural and Mechanical College building, Starkville, Miss.

**Bridge Construction.**—Board of Revenue and Road Commrs., Mobile county, Mobile, Ala.—Bids until Oct. 6 to construct bridge across Perch Creek, on Cedar Point Rd.; bids for both concrete and creosoted wood structure; plans and specifications obtainable from County Highway Engr., Room 11, Bank of Mobile Bldg.

**Bridge Construction.**—P. St. J. Wilson, State Highway Commr., Richmond, Va.—Bids until Sept. 22 at Clerk's office, Powhatan, Va., to construct bridge across Jones County Highway Engr.'s office, 11 Bank of Virginia at Clerk's office.

**Bridge Construction.**—Wise County Circuit Court, Wise, Va.—Bids Sept. 18 to construct following bridges across Guest River: 1 1/2 mi. from Norton, std. 70-ft. span, 12-ft. roadway; 2 mi. from Norton, 98-ft. 10 in. structure, with 12-ft roadway, steel, 1 std. 70-ft. span and 1 std. 27-ft span; 3 1/2 mi. from Norton, 80-ft. span, 12-ft. roadway; 2 mi. from Coeburn, std. 190-ft. steel span, 12-ft roadway; all concrete substructure, with alternate bids on cement rubble and concrete rubble; plans and specifications after Sept. 2 at offices of P. St. J. Wilson, State Highway Commr., Richmond, or Clerk of Circuit Court, Wise; blueprints from Childrey Co., Richmond.

**Broom Corn.**—John Q. Baer, Box 192, Utica, N. Y.—Addresses of manufacturers of broom corn.

**Buffing Machine.**—Noble Machine Co., Fort Wayne, Ind.—Automatic feed wire buffing machine.

**Building Materials.**—New Building and Loan Assn., Euston, Md.—Prices on builders' hardware, lumber, millwork and plumbing supplies.

**Building Materials.**—J. A. Berry, Orangeburg, S. C.—Materials for 50x100-ft. garage, including two iron girders 24 ft. 2 in. long, each sufficiently heavy to support two stories above; good roofing; plate glass for front, etc.; give prices f. o. b.

**Canning Machinery.**—A. T. Bardull, Pensacola, Fla.—Prices, from manufacturers, on 4-revolt canning plant and accessories.

**Canning Machinery.**—E. Hubbard, Rodman, Fla.—Correspondence with manufacturers of canning equipment of large capacity.

**Canal Construction.**—Troy Cross Arm Co., Troy, N. C.—Correspondence relative to contract for cutting canal 1000 ft. long, 30 ft. wide; about 6000 cu. yds. material to move, one-half rock, balance earth and loose rock.

**Canal Construction.**—Board of Public Works, W. L. Lowry, Clerk, Plant City, Fla.—Bids until Sept. 27 for excavating Water Oak, South and West and Thomas Bay canals; plans and specifications in Clerk's office.

**Capstan.**—See Electrical Machinery, etc.

**Casters.**—R. Faguehn, 154 Faubourg St. Martin, Paris, France.—Addresses of American manufacturers of bedstead casters.

**Condenser.**—See Electrical Machinery, etc.

**Copper Facing, etc.**—Elliott Wood, Supt. U. S. Capitol Building and Grounds, Washington, D. C.—Bids until Sept. 22 for copper facing and gutter, mansard story, House Office Building; plans and specifications on application.

**Cotton Waste, etc.**—L. C. Fisher, Box 655, Charleston, S. C.—Addresses of manu-

facturers of or dealers in white and colored waste; also engine wipers.

**Crates, etc.**—Craig Healing Springs Co., Springs, Va.—Catalogues and prices on crates and carboys (in car lots) for shipping water.

**Cranes.**—See Pumps, etc., Isthmian Canal Com.

**Creamery Machinery.**—A. T. Barkdull, Pensacola, Fla.—Prices from manufacturers on small creamery outfit.

**Crusher.**—John D. Harris, Travelers Bldg., Richmond, Va.—Stone crusher, with or without power.

**Disposal Plant.**—B. M. Head, City Clerk, Durant, Okla.—Bids until Sept. 30 for furnishing tools and material and constructing sewage-disposal plant; Benham Engineering Co., Consult. Engr., 435 American National Bank Bldg., Oklahoma City, from whom plans, etc., are obtainable on deposit of \$15.

**Dredging.**—U. S. Engrs. Office, Mobile, Ala.—Bids until Oct. 7 for dredging channel connecting Mobile Bay and Mississippi Sound at Pass Aux Herons, Ala.; R. T. Ward, Capt. Engrs. Information on application.

**Dredging.**—U. S. Engr. Office, W. C. Laughtitt, Lieut. Col. Engrs., 365 Southern Bldg., Washington, D. C.—Bids until Oct. 14 for dredging in Virginia channel, Potomac River. Information on application.

**Earthwork.**—Mississippi River Com., 4th Dist., U. S. Engr. Office, C. O. Sherrill, Capt. Engrs., Metropolitan Bank Bldg., New Orleans, La.—Bids until Sept. 19 to construct 195,000 cu. yds. earthwork in Atchafalaya, Lafourche, Barataria and Pontchartrain Levee Dists.; information on application.

**Electric Plants.**—See Gas and Electric Plant.

**Electric-light Fixtures.**—See Furniture, etc.

**Electric-light Plant.**—See Filtration Plant, Electric-light Plant, etc.

**Electric-light Plant.**—Mississippi Industrial Institute and College, D. T. Gaston, Secy.-Treas., Mobile, Ala.—Bids Oct. 1 for installing electric-light plant at college.

**Electric-light Plant.**—New Century Hotel Co., F. M. Fisher, Prest., Paducah, Ky.—Consider estimates on installing electric-light plant to cost \$7500.

**Electrical Equipment.**—Graves & Stamp, Des Arc, Mo.—Prices on dynamo and switchboard for factory use.

**Electrical Machinery.**—See Pumps, etc., Isthmian Canal Com.

**Electrical Machinery, etc.**—Craig Healing Springs Co., Springs, Va.—Catalogues and prices on 15 K. W. 120-volt generator, fixtures and supplies for 350 lights.

**Electrical Machinery.**—Greensboro Water & Light Co., Greensboro, Ala.—Prices on electrically-operated pumps; may need new electric machines.

**Electrical Machinery.**—Wellington Power & Light Co., Wellington, Tex.—Will want poles, mercury rectifiers, light fixtures, shades and electrical novelties.

**Electrical Machinery.**—Bradford Knitting Mill, Statesville, N. C.—5, 10 and 15 H. P. electric motors; 1 each; 3 phase, 60 cycle, 900 or 1200 R. P. M.

**Electrical Machinery, etc.**—Geo. J. Adams, 39 South St., Cor. Old Slip, New York.—Two 80-H. P. direct-current 230-volt motors; low service pump, about 10x10x12; steam-driven capstan; 100-K. W. 220-volt direct-current direct-connected set; also 3000 H. P. surface condenser.

**Elevators.**—M. T. Chapman, of American Well Works, Aurora, Ill.—2 electric freight elevators and passenger elevators and freight elevators for 4-story building in Aurora.

**Filtration Plant, Electric-light Plant, etc.**—Office of City Secy., Longview, Tex.—Bids until Oct. 8 to construct mechanical filtration plant, 1,000,000 gals. capacity, pumping and electric-light plant, and discharge main 3 1/2 mi. long; cost \$10,000; complete plans, etc., at City Secy's office and office of Aetna Engineering Bureau, 17 La Salle St., Chicago.

**Foundry Tumbler.**—Raleigh Iron Works Co., Raleigh, N. C.—Prices on 36x18 in. second-hand foundry geared tumbler.

**Furniture, etc.**—Hernando County Commrs., Brookville, Fla.—Bids Oct. 15 for office and courtroom furniture, electric-light fixtures and vault furnishings; bids separately or as a whole; specifications furnished at offices of Clerk and of W. A. Edwards, archit., 632 Candler Bldg., Atlanta; samples submitted when bids are opened.

**Gas Plant.**—Bachman & Co., 624 Stock Exchange Bldg., Philadelphia, Pa.—Invite bids to construct gas generating house at

Gastonia, N. C.; plans, specifications, etc., upon application.

**Gas and Electric Plant.**—Bachman & Co., 624 Stock Exchange Bldg., Philadelphia, Pa.—Invite bids to construct gas and electric power house at Georgetown, S. C.; plans, specifications, etc., upon application.

**Glue Heater.**—Graves & Stamp, Des Arc, Mo.—Prices on glue heater, 1 or 2-pot size.

**Grading.**—Jefferson County Pike Com., Arthur Holtsinger, Secy., Dandridge, Tenn.—Bids until Sept. 15 for grading about 35 mi. road; specifications at office of Commrs.

**Grading.**—Chamber County Commrs., Court, Lafayette, Ala.—Bids until Oct. 1 for grading 2.75 mi. Maroon Rd. from Trammells x-road to Tillers x-road; expenditure \$6000; profiles, etc., in office of Probate Judge; W. S. Keller, State Highway Engr., Montgomery.

**Grading, etc.**—Chas. E. Bolling, City Engr., Richmond, Va.—Bids until Sept. 9 to gravel streets in Wm. Byrd Realty Corp. addition, construct granite curbs and gutters, build rubble-stone wall and grade in South Richmond; proposal forms and information on application.

**Handles.**—John Q. Baer, Box 192, Utica, N. Y.—Addresses of manufacturers of broom handles.

**Hardware.**—See Tools, etc.

**Hardware.**—See Casters.

**Hardware.**—Quality Saw Co., Ltd., Norfolk House, Laurence Poultney Hill, London, E. C., Eng.—Interested, with view to agencies on commission, in manufactures, including iron and brass screws for wood, emery and corundum wheels, files, engineers and carpenters' hand tools, etc.

**Heating Plant.**—Commissioners of State Institutions, Governor's office, Tallahassee, Fla.—Bids until Sept. 24 (extended date) to install steam-heating and hot-water system for Receiving Hospital for Florida Hospital for Insane, Chattahoochee, Fla.; bond \$1000 as guarantee that plant is satisfactorily installed and works properly; plans and specifications from Bishop & Greer, archts., Valdosta, Ga., upon deposit \$10.

**Hot-water Heating.**—Chas. P. Richardson, 1201 Stanton Ave. N. W., Roanoke, Va.—Hot-water heater for 10-room residence.

**Ice Machinery.**—Hicks Bros., Antauagville, Ala.—Addresses of manufacturers of and dealers in ice machinery.

**Incinerator.**—W. P. Danford, City Engr., Durant, Okla.—Bids until Sept. 30 for constructing 10-ton garbage incinerator; Benham Engineering Co., consult. engr., 435 American National Bank Bldg., Oklahoma City.

**Leather Machinery.**—See Buffing Machine.

**Locomotive.**—Roanoke River Log Co., 306 High St., Portsmouth, Va.—Locomotive; 26-in. gauge locomotive; 9x16; weight about 15 tons.

**Manufactured Products.**—Comptoir General d'Exportation, 63 Rue de Wattignies, Paris, France.—Correspondence with American manufacturers; states: "Interested in every kind of goods suitable for export and import;" markets include the Balkans, Russia, Orient and North Africa.

**Metal Forms.**—Board of Trade, J. G. Weatherly, Secy., Brunswick, Ga.—Addresses of manufacturers building collapsible metal forms for 12, 18 and 24-in. concrete drain tiling.

**Metal Tile.**—Palmetto Hardware Co., Dillon, S. C.—Addresses of manufacturers of enameled metal tile in one piece for fire-places.

**Metal Workers.**—Southern Mfg. Co., John R. Griffin, Prest., Fort Worth, Tex.—Correspondence with specialty manufacturer working in light cold-rolled steel; view to placing order for making Handy Hame Fastener.

**Metal Workers.**—L. A. Wilcox, Bradford, Fla.—Correspondence with companies stamping sheet metal; view to placing order for mfr. of article 12 in. long by 2 in. wide, of sheet steel about 1-32 in. thick.

**Mining Machinery.**—Neel Mining Co., Abbeville, S. C.—Prices on concentrating plant for separating gold sulphides, pumps, etc.

**Mining Machinery, etc.**—J. C. Arnold, 21 W. 13th Ave., Cordele, Ga.—Data on mining, burning and grinding line silica for building and agricultural purposes; also prices on machines, kilns, etc.

**Naval Supplies.**—Bureau of Supplies and Accounts, Navy Dept., T. J. Cowie, Paymaster-General, Washington, D. C.—Bids until Sept. 30 to furnish at Washington yard vertical milling machine, sch. 5829; blanks on application to bureau. To furnish at navy-

yard, Norfolk, sch. 5830, evaporated milk, sugar; sch. 5845, twist drills. Blank proposals on application to navy pay office, Norfolk, or to bureau. Applications for proposals designate by number.

**Naval Supplies.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Sept. 23 to furnish at Navy-yard, Charleston, S. C., naval supplies: Sch. 5817, steel rails, frogs, switches, spikes, bolts, ties; sch. 5836, lead pipe; sch. 5837, white ash, white pine. Blanks on application to navy pay office, Charleston, or to bureau.

To furnish at Navy-yard, Norfolk, Va., quantity of naval supplies: Sch. 5818, steel doors and frames; sch. 5822, steel wheelbarrows; sch. 5825, putty. Blanks on application to navy pay office, Norfolk, Va., or to bureau.

To furnish at Navy-yard, Washington, D. C., quantity of naval supplies: Sch. 5812, furnishing and installing soot cleaners on boilers; sch. 5818, rubber-insulated cable; sch. 5819, rubber hose, rawhide belt lacing, wood hand screws, black bristles; sch. 5820, seamless steel tubes; sch. 5832, copper and cupro-nickel shell bands. Blanks on application to bureau.

Applications for proposals should designate schedules desired by number, 2. J. Cowie, Paymaster-General.

**Ornamental Terra-cotta.**—C. E. Cline, Frederick, Md.—Prices on ornamental terra-cotta for 1-story exterior of 31x50-ft. building.

**Paving.**—Triadelphia, W. Va., Walter Thomas, Clk.—Bids until Sept. 16 for paving, with brick, National Rd. through town; specifications, etc., at H. V. Springer's office, Elm Grove, W. Va.

**Paving.**—Parkersburg, W. Va., Frank Good, City Clk.—Bids until Sept. 15 for furnishing materials, labor and tools and completing portions of 12th, 16th, Ann, 14th, Green, 8th, Clay, Oak and Avery Sts., Williams Ct., St. James and Phillips Court Ais.; plans, blank forms, etc., in office of City Engr.

**Paving.**—Town of Glater Park.—Bids until Sept. 19 for resurfacing roadways with asphaltic concrete, asphalt macadam or hot surface treatment; specifications obtainable on application to L. R. Curry, Chrmn. Com. on Streets, 34 N. 7th St., Richmond, Va.

**Paving, etc.**—Paving Co., R. Keith Compton, Chrmn. and Consult. Engr., Baltimore, Md.—Bids until Sept. 17 at City Register's office, City Hall, for grading, curbing and paving with sheet asphalt and vitrified blocks parts of St. Paul, Laurens and Lanvale Sts.; contract No. 71; sheet asphalt, 5000 sq. yds.; vitrified block, 570 sq. yds.; plans and specifications at office of Paving Com.

**Paving.**—Board of Awards, John Hubert, Prest. pro tem., Baltimore, Md.—Bids at office of City Register, City Hall, until Sept. 17 to grade, curb and pave (contract No. 127) about 11,800 sq. yds. sheet asphalt on Windsor and Clifton Aves. and Poplar Grove, Longwood and Rosedale Sts.; specifications on application, office of Commr. for Opening Streets, Eugene E. Grannan, Prest., City Hall.

**Pulley.**—A. E. Lewis, 1922 Boulevard, Miami, Fla.—Addresses of manufacturers of weight and pulley apparatus for raising 40x 18-ft. partition wall.

**Pump.**—See Electrical Machinery, etc.

**Pump.**—Lapel Bottle Co., Lapel, Ind.—Motor or belt-driven gas pump, capacity about 500 ft. gas per hour; 4-in. inlet, 2-in. outlet.

**Pumps, etc.**—Isthmian Canal Com., Maj. P. C. Boggs, General Purchasing Officer, Washington, D. C.—Bids until Oct. 6 to furnish motor-driven centrifugal pumps, valves, piping, hydraulic operating tables, traveling cranes, air compressor and switchboards, complete, with electrical instruments and connections. Blanks and general information relating to this circular (No. 796) at this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1696 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Pumping Engine.**—City of Jacksonville, Fla., E. L. Carroll, Supt. Water and Sewer Dept.—Opens bids Oct. 6 to install pumping engine of 12,000,000 gals. capacity.

**Road Construction.**—Montgomery County Board of Revenue, Montgomery, Ala.—Bids until Sept. 29 for grading and graveling 4 mi.

Merriweather Rd. from Matthews Station to Pike Rd.; Thomas H. Edwards, County Engr.

**Road Construction.**—Winston County Commrs. Court, Haleyville, Ala.—Bids until Oct. 1 at Traders and Farmers' Bank to grade, drain and surface with sand-clay or gravel part of Haleyville and Double Springs Rd.; expenditure \$6000; W. S. Keller, State Highway Engr., Montgomery.

**Retaining Wall.**—O. A. Spencer, Commr. Public Works, Bradentown, Fla.—Bids until Sept. 16 for constructing retaining wall on Manatee St.; plans and specifications at City Clerk's office.

**Road Machinery.**—Jos. A. Bell & Co., Richmond, Va.—Second-hand 10-ton steam roller; first-class condition; describe and give lowest price first letter.

**Roofing.**—Jordan-Munn Construction Co., Greenville, S. C.—Prices on 79 sq. 40 lbs. standing seam tin roofing for school building Anderson, S. C.

**Seales.**—J. G. White, Grover, N. C.—Prices on new or second-hand lever platform scales for cotton bales.

**Seating.**—See Furnishings, etc.

**Sewer Construction.**—See Water and Sewer Systems, Eaton, Ind.

**Sewers.**—Montgomery County Commrs. Jos. T. White, Prest., Rockville, Md.—Bids until Sept. 16 for preparation general plans sewer system in Silver Spring subdivision; estimated cost, detail plans and specifications, contract forms, etc.

**Shredded Fiber.**—John Q. Baer, Box 192, Utica, N. Y.—Addresses of manufacturers of shredded fiber.

**Slate Blackboard.**—Jordan-Munn Construction Co., Greenville, S. C.—Prices on 900 sq. ft. slate blackboard.

**Tank.**—Gregory Ice Cream Co., Manchester, Md.—Addresses of manufacturers (in Baltimore preferred) who would make light galvanized-iron tank, 4x19 ft.

**Thermometers, etc.**—E. K. Victor & Co., 555, Richmond, Va.—Addresses of manufacturers of self-registering thermometers and hydrometers.

**Tools.**—See Hardware, etc.

**Theater Front.**—J. Cohen, Norton, Va.—Prices on front for moving picture theater.

**Timber.**—Craig Bros., Bassett, Va.—Timber boundary in Virginia or North Carolina; 5,000,000 to 10,000,000 ft. oak or pine; convenient to railroad; healthy section.

**Tools, etc.**—Ch. Cescan, 76 Ave. de Jette, Brussels Koekelberg, Belgium.—Interested, with view to agencies, in small tools, kitchen supplies and accessories and articles for bicycles and motors.

**Vault Furnishings.**—See Furniture, etc.

**Vehicles.**—W. R. Cooke, Jr., Richmond, Va.—Addresses of vehicle manufacturers; view to agency on mail orders.

**Water and Sewer Systems.**—City of Eaton, Ind., Geo. W. Hoover, Chmn.—Correspondence with contractors relative to installation of water and sewer systems.

**Watchman's Clock.**—Graves & Stamp, Des Arc, Mo.—Prices on watchman's clock.

**Water-works.**—Bond Commission, Cordova, Ga.—Bids until Sept. 23 (postponed date) from manufacturers for 100,000-gal. tank and tower, 1,500,000-gal. pumping engine, 7x18 high pressure R. T. boilers, 350-ft. comp. duplex air compressor, 30 gate valves, 30 fire hydrants and 350 tons C. I. pipe, principally 8 in.; proposals received from contractors for furnishing all materials except pipe and laying 3 mi. water mains, constructing 250,000-gal. reinforced concrete reservoir, brick pumping station and 48 in. x 80-ft. brick or concrete circular stack; plans and specifications at offices G. S. Harris, City Clerk, and Arthur Pew, Consult. Engr., Atlanta, Ga.

**Water Mains.**—City of Keyser, W. Va.—Bids until Sept. 9 to renew and extend water mains; 1350 ft. 8-in. and 2500 ft. 4-in. mains; Leander Schaidt, Engr.; H. G. Steerts, Water Supt.

**Water Motor.**—McCorkle & Baylis, 704 Farley Bldg., Birmingham, Ala.—Data and prices on water motor, direct connected to centrifugal pump.

**Water-works.**—City of Goldsboro, N. C., John R. Higgins, Mayor.—Bids until Sept. 9 to construct 500,000-gal. (not 1,500,000-gal. as lately reported) concrete reservoir; reinforced concrete cover; 2500 cu. yds. excavation, 300 cu. yds. plain concrete and 90 cu. yds. reinforced concrete; Gilbert C. White, Engr., Charlotte, N. C.

**Wood Splitters.**—Roxboro Bottling Wks., Roxboro, N. C.—Addresses of mfrs. of wood splitters for wood yards.

W. M. Middlebrooks of Gardner, Fla., writing to the MANUFACTURERS RECORD with reference to the naval stores industry, says that the high price of \$1.07 a gallon for turpentine which was maintained in the season of 1910-11 for a few days brought about an overproduction and a consequent decided fall in price, so that the South today is supplying the world with most of its naval stores at a loss to itself and at the same time is wasting its pine timber.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters. Items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Review of the Baltimore Market.

Office MANUFACTURERS RECORD, Baltimore, Md., September 10.

The Baltimore stock market continued quiet during the past week. There were sales as follows: United Railways common, 26 $\frac{1}{2}$  to 27; do. income bonds, 63 $\frac{1}{4}$  to 63; do. funding 5s, 87 to 88 $\frac{1}{4}$ ; do. notes, 107 $\frac{3}{4}$ ; do. 4s, 83 to 83 $\frac{1}{4}$ ; United Electric Light & Power 4 $\frac{1}{2}$ s, 90; Consolidated Gas, Electric Light & Power common, 112 $\frac{1}{2}$  to 113 $\frac{1}{4}$ ; do. preferred, 112 $\frac{1}{2}$  to 114; Consolidated Gas 5s, 104 $\frac{1}{2}$ ; do. 4 $\frac{1}{2}$ s, 92 $\frac{1}{2}$  to 92 $\frac{1}{2}$ ; Seaboard 4s, stamped, 83; Mt. Vernon-Woodberry Cotton Duck 5s, 68 to 69 $\frac{1}{2}$ ; G. B. S. Brewing 4s, 43 $\frac{1}{2}$ .

Merchants-Mechanics' Bank stock sold from 33 to 33 $\frac{3}{4}$ ; Citizens' Bank, 42 $\frac{1}{2}$ ; Western Bank, 37 $\frac{1}{2}$ ; Fidelity & Deposit, 159 to 157 $\frac{1}{2}$ ; Maryland Casualty, 95; United States Fidelity, 192 to 190.

Other securities were traded in thus: Baltimore City 4s, 1901, 94 $\frac{1}{2}$  to 93 $\frac{1}{2}$ ; do. do. 1954, 93 $\frac{1}{2}$ ; do. do. 1951, 93 $\frac{1}{2}$ ; do. do. 1955, 93 $\frac{1}{2}$ ; do. 3 $\frac{1}{2}$ s, 1940, 89 $\frac{1}{2}$ ; do. do. 1930, 84; do. 5s, 1916, 101; Houston Oil common, trust certificates, 16 $\frac{1}{2}$  to 17; do. preferred do., 57 $\frac{1}{2}$  to 58 $\frac{1}{2}$ ; Fairmont & Clarksburg Traction 5s, 90 $\frac{1}{2}$ ; Pennsylvania Water & Power 5s, 91; do. common stock, 70 $\frac{1}{2}$  to 70; Arundel Sand & Gravel 6s, 98; Jamison Coal & Coke, George's Creek 5s, 91; Maryland Electric 5s, 97 $\frac{1}{2}$  to 98; City & Suburban (Washington) 5s, 100 $\frac{1}{2}$  to 100 $\frac{1}{2}$ ; Virginia Railway & Power 5s, 92 $\frac{1}{2}$ ; Alabama Consolidated Coal & Iron 5s, 70; Northern Central Railway stock, 115 $\frac{1}{2}$ ; Baltimore Electric 5s, stamped, 98 $\frac{1}{4}$ ; do. preferred stock, 43 $\frac{1}{2}$ ; Consolidation Coal convertible 6s, 100 $\frac{1}{2}$  to 100; Norfolk Railway & Light 5s, 98; Alabama Company common, 7 $\frac{1}{2}$ ; Knoxville Traction 5s, 100 $\frac{1}{2}$ ; Atlantic Coast Line of Connecticut, 24 $\frac{1}{2}$ ; Norfolk & Atlantic Terminal 5s, 93 to 93 $\frac{1}{4}$ ; Danville Traction & Power 5s, 94; Western North Carolina 6s, 100 $\frac{1}{2}$ ; Atlantic Coast Line convertible debenture 4s, 95; State of Maryland 4s, 1927, 97 $\frac{1}{2}$ ; Anacostia & Potomac 5s, 98; Georgia Pacific 1st 6s, 107 $\frac{1}{2}$ ; Monongahela Valley Traction 5s, 92; J. Spencer Turner debenture 6s, 95 to 95.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended September 10, 1913.

Railroad Stocks.	Par.	Bid.	Asked.
At. Coast Line of Conn.	100	237	245
Ga. Sou. & Fla. 2d Pfd.	100	...	81 $\frac{1}{2}$
Maryland & Pennsylvania	100	25	30 $\frac{1}{4}$
Seaboard Air Line Com.	100	17 $\frac{1}{2}$	19 $\frac{1}{2}$
Seaboard Air Line Pfd.	100	44 $\frac{1}{4}$	45
United Rys. & Elec. Co.	50	26 $\frac{1}{2}$	27
Virginia Ry. & Pow. Pfd.	100	113	114 $\frac{1}{2}$
Bank Stocks.			
Bank of Baltimore	100	179 $\frac{1}{2}$	182
Bank of Commerce	100	15	29
Citizens' Bank	100	10	42 $\frac{1}{4}$
First National	100	120	...
Merchants-Mechanics'	100	33 $\frac{1}{2}$	34
National City	100	99	100
Union	100	135	140

Trust, Fidelity and Casualty Stocks.		
Continental Trust	100	205
Fidelity & Deposit	50	157 $\frac{1}{2}$
Merc. Trust & Dep.	50	165
U. S. Fidelity & Guaranty	100	190

Miscellaneous Stocks.		
Baltimore Elec. Pfd.	50	43 $\frac{1}{2}$
Con. Gas, Elec. Lt. & P. Com.	100	112
Con. Gas, Elec. Lt. & P. Pfd.	100	113 $\frac{1}{4}$
Consolidation Coal	100	95 $\frac{1}{2}$
G. B. S. Brewing Co.	100	2 $\frac{1}{2}$

Railroad Bonds.		
Atlantic Coast 1st 4s.	91 $\frac{1}{4}$	91 $\frac{1}{4}$
At. Coast Conv. Pfd.	94	96
At. C. Conn. 4s, Cfs., 5-20s.	87 $\frac{1}{2}$	89 $\frac{1}{2}$
At. Coast Conn. 5s.	100	...
Balto. & Annap. S. L. 5s.	100	...
Carolina Central 4s.	84 $\frac{1}{2}$	88
Charleston & West. Car. 5s.	103	...
Coal & Iron Railway 5s.	98	100
Georgia & Alabama 5s.	101 $\frac{1}{2}$	...
Georgia & Florida 5s.	82	...
Georgia Pacific 1st 6s.	105	110
Georgia Southern & Fla. 1st 5s.	101 $\frac{1}{2}$	...
New Orleans-Great No. 5s.	61	...
New Orleans, M. & C. 5s.	59	51 $\frac{1}{2}$
Potomac Valley 1st 5s.	101 $\frac{1}{2}$	...
Sav., Fla. & West. 5s.	103	...
Seaboard Air Line 4s.	82	85
Seaboard 4s, Stamped.	82	85
Seaboard & Roanoke 5s.	103 $\frac{1}{2}$	103 $\frac{1}{2}$
Southern Railway Con. 5s.	103 $\frac{1}{2}$	103 $\frac{1}{2}$
Western N. C. Con. 6s.	100 $\frac{1}{2}$	100 $\frac{1}{2}$
Wilmington & Weldon 4s.	94	...
Wilmington & Weldon 5s.	103 $\frac{1}{2}$	105
Wash., Balto. & Annap. 5s.	83 $\frac{1}{2}$	...

Street Railway Bonds.		
Anacostia & Potomac 5s.	97	98 $\frac{1}{2}$
Anacostia & Potomac 5s, Gtd.	98	101
Balto. Sp. Pr. & C. 4s.	95 $\frac{1}{2}$	...
Baltimore Traction 1st 5s.	101 $\frac{1}{2}$	104
Central Railway (Balto.) Con. 5s.	102	104 $\frac{1}{2}$
Charleston Con. Elec. 5s.	90 $\frac{1}{2}$	91 $\frac{1}{2}$
Columbia R. G. & E. 5s.	91	95
City & Suburban 5s (Balto.).	101 $\frac{1}{2}$	103
City & Suburban 5s (Wash.).	100	100 $\frac{1}{2}$
Danville Traction 5s.	93 $\frac{1}{2}$	94 $\frac{1}{2}$
Fairmont & Clarksburg Trac. 5s.	99 $\frac{1}{2}$	100
Knoxville Traction 5s.	100 $\frac{1}{2}$	103
Macon Railway & Light 5s.	96 $\frac{1}{2}$	...
Maryland Electric Railways 5s.	98	...
Monongahela Val. Trac. 5s.	91	92
Newport News & O. P. 5s.	97	...
Norfolk & Portsmouth Trac. 5s.	98	...
Norfolk Railway & Light 5s.	97 $\frac{1}{2}$	98
Norfolk Street Railway 5s.	102 $\frac{1}{2}$	...
Norfolk & Atlantic Ter. 5s.	93	94
United Railways 1st 4s.	83 $\frac{1}{2}$	83 $\frac{1}{2}$
United Railways Income 4s.	62 $\frac{1}{2}$	63
United Railways Funding 5s.	86	87 $\frac{1}{2}$
Virginia Railway & P. 5s.	92 $\frac{1}{2}$	...

Miscellaneous Bonds.		
Ala. Con. Coal & Iron 5s.	70	72 $\frac{1}{2}$
Baltimore Electric 5s, Stp.	98	98 $\frac{1}{2}$
Consolidated Gas 5s.	104	...
Consolidated Gas 4s.	92 $\frac{1}{2}$	93 $\frac{1}{2}$
Con. Gas, Elec. Lt. & P. 4s.	96	87 $\frac{1}{2}$
Consolidation Coal Refd. 5s.	86	...
Davidson Chemical 6s.	97	98 $\frac{1}{2}$
G. B. S. Brewing 1st 4s.	43	44
G. B. S. Brewing Income 5s.	8	9
Jamison C. & C. 5s.	93	...
Mt. Vernon-Woodby Cot. Duck 5s.	69	70
Penna. Wat. & Pow. 5s.	90 $\frac{1}{2}$	91 $\frac{1}{2}$
Portland Railway Refd. 5s.	99	...
St. Joseph R. L. H. & P. 5s.	98	...
United Elec. Lt. & P. 4s.	90	...

### Consolidated Power of Baltimore.

The Consolidated Gas, Electric Light & Power Co. of Baltimore has issued a statement covering the results of operation for the fiscal year ended June 30, 1913. It shows gross earnings from gas and electricity \$6,062,951.32, increase as compared with the preceding fiscal year \$632,383.04; total gross income \$6,114,973.35, increase \$649,686.17; operating expenses and taxes \$2,963,186.55, increase \$320,203.15; net earnings \$3,151,792.80, increase \$329,393.02; surplus available for dividends and reserves after deducting interest on funded debt, etc., \$1,675,025.36, increase \$269,893.44. Dividends amounting to \$810,672.61 were paid, increase \$65,922.65, and a reserve of \$460,000 was made for depreciation, amortization, etc., this latter being an increase of \$4473.36, which left a surplus of \$404,352.75, which was an increase of \$199,497.43. From this was deducted a special reserve of \$300,000, leaving a net surplus of \$104,352.75, a decrease of \$100,502.57.

### FINANCIAL CORPORATIONS.

Ala., Tallahassee.—Bank of Tallahassee of Elmore County organized; capital \$15,000; Geo. D. Patterson, Prest.; Dr. Jesse Gullidge, V.-P., and R. H. Hays, Cash. Business has begun.

Ark., Judsonia.—Chartered: First National Bank; capital \$50,000, succeeding Judsonia State Bank. C. M. Ergenbright, Prest.; J. S. Ladd, 1st V.-P.; A. M. Kittler, 2d V.-P.; C. F. Long, Cashr.; V. L. Jamieson, Asst. Cash. Business began Sept. 3.

Ark., Judsonia.—Chartered: First National Bank; capital \$50,000; C. M. Ergenbright, Prest.; C. F. Long, Cashr. This succeeds the Judsonia State Bank.

Ark., Malvern.—The Merchants & Farmers'

Bank organized; capital \$50,000; T. N. Atchison, Prest.; J. W. Lee, 1st V.-P.; T. J. Roland, 2d V.-P., and Geo. B. Cox, Cash.

Fla., Jennings.—Commercial Bank organized. J. F. Smith, Prest.; T. A. Patch, Cash.

Ky., Bowling Green.—Conversion of Warren State Bank into Warren National Bank; approved; capital \$100,000. (Previously noted.)

Ky., Louisville.—The Iroquois Life Insurance Co. has filed articles of incorporation; capital \$100,000; incorporators, L. A. Walter, W. J. Day, J. A. Dawson, W. E. Simpson, B. H. Boyd, Sam B. Metcalfe, Charles W. Stein, W. R. Walter, W. J. Schleich, E. Leiland Taylor, J. E. Conkling and Henry Enos Taylor.

La., Delta.—The Delta Life Insurance Co. organized; capital \$10,000; E. J. Mothe, Prest.; E. M. Stafford, V.-P.; Wallace S. Lampton, Secy.-Treas.

La., New Orleans.—The Delta Life Insurance Co. has applied for charter; capital \$10,000. E. J. Mothe, Prest.; E. M. Stafford, V.-P.; Wallace S. Lampton, Secy.-Treas.

La., St. Francisville.—Plans are reported under way to organize new bank.

Md., Frederick.—People's State Bank organizing; capital \$80,000; surplus \$20,000. C. E. Cline will be prest. Business is to begin about April 1.

Miss., Brooksville.—Cotton Exchange Bank, previously mentioned, will begin business Sept. 15; capital \$25,000. C. L. Allen and others organizers.

Miss., Longview.—Longview Bank, capital \$10,000, began business Aug. 19. Hardin Adams, Prest.; P. H. Adams and J. C. Lewis, V.-Pres.; L. H. Brandon, Cash.

Miss., Tunica.—The Farmers' Bank, capitalized at \$40,000, is being organized by Sterling W. Owen and others.

Mo., St. Louis.—Laclede Trust Co., 2331 Market St., is reported organized by Henry H. Oberschelp and others.

N. C., Smithfield.—Smithfield Building and Loan Association, capital \$100,000, organized by Prof. L. T. Royall and others.

Okla., Francis.—Approved: Francis National Bank; capital \$25,000; organizers, A. G. Adams, Ada, Okla.; W. P. Chism, S. M. Richey, A. Goetter, A. Doner and others.

Okla., Hydro.—Chartered: Farmers' National Bank; capital \$25,000. D. O. Potter, Prest.; J. D. Cusenbary, Cash.

Okla., Ringling.—Chartered: First National Bank; capital \$50,000. J. J. Cloughley, Prest.; A. A. Morris, Cash.

S. C., Elloroe.—Bank of Elloroe, previously mentioned, is chartered; capital \$50,000; surplus \$10,000; began business Aug. 28. This represents a consolidation of Bank of Elloroe and People's Bank of Elloroe; Robert Lido, Prest.; A. A. Dantzer and W. M. Fair, V.-P.; P. P. Hungerpillar, Cashr.; Allan F. Lido, Asst. Cashr.

S. C., Georgetown.—Commissioned: Mutual Building and Loan Asso.; capital \$100,000; petitioners, N. L. Oliver, L. B. Steele, N. L. Smith, Jr., and G. B. Sanders.

S. C., Charleston.—Chartered: Fidelity Investment Co.; capital \$30,000; incorp., T. T. Tyde, R. C. Richardson, R. S. Whaley and N. B. Barnwell.

Tenn., Henderson.—People's Savings Bank, chartered last May with \$50,000, has begun business; J. G. Hardeman, G. E. McKinney and others, organizers.

Tenn., Knoxville.—Atlas Investment Co., previously noted, began business Sept. 1; capital \$100,000; T. R. Rambo, Prest.; D. C. Webb, V.-P.; C. B. Johnson, director.

Tex., Brookston.—State Bank of Brookston, capital \$10,000, has begun business. B. Temple, Prest.; Dr. L. B. Stephens, V.-P.; J. C. Hathaway, Cash.

Tex., Cedar Hill.—The Cedar Hill State Bank, capital \$15,000, is authorized to do business. E. R. G. Brandenberg, cashier.

Tex., Cibola.—Cibola National Bank has made application to organize; capital \$25,000; Anton T. Pfeil, F. J. Werber, C. E. Tips, G. Schlatter and A. Schraub. This succeeds the Cibola Bank.

Tex., Decatur.—Approved: State National Bank; capital \$50,000; Guinn Williams, J. A. Simmons, A. Y. Leslie, W. B. Harrison and E. P. Gibson.

Tex., Ellysan Fields.—Guaranty State Bank, capital \$10,000, has begun business. E. S. Fry, Marshall, Prest.; J. M. Furrh, V.-P.; E. M. Grimes, Jr., Cash.

[For Additional Financial News, See Page 70.]



**Merchants-Mechanics National Bank**

South and Water Sts., BALTIMORE, MD.  
DOUGLAS H. THOMAS, President.  
JNO B RAMSAY, V.-P and Chm. Bd. of Dir.  
WM INGLE, Vice-President.  
JOHN B. H. DUNN, Cashier.  
Capital \$2,000,000 Deposits \$21,670,000  
Surplus and Profits \$2,175,000

Accounts of Banks, Bankers, Corporations and Individuals solicited.

We invite correspondence.

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United States Depository and Disbursing Agent  
Capital \$100,000  
Surplus and Undivided Profits 40,000  
A general banking business transacted.  
Special attention given to collections.

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Municipal and Corporation  
Cotton Mill Stock a Specialty  
WM. S. GLENN, Broker, SPARTANBURG, S. C.

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
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INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.  
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J. ERNEST SMITH, President and Gen. Counsel.  
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We are in position to pay HIGHEST PRICES. Write or wire us your offerings.

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**To Manufacturers and Capitalists**

Contemplating the Establishment of Industrial Enterprises

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on Hampton Roads, fifteen miles from the sea. Deep water, railway and sea transportation facilities unrivaled. Climate salubrious. Apply to

W. B. LIVEZEY, President

OLD DOMINION LAND COMPANY  
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H. B. Wilcox, Pres. Blanchard Randall, V.-Pres.

Wm. S. Hammond, Cashier

Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

**The First National Bank**

17 South St., Baltimore, Md.  
Capital, - - - \$1,000,000  
Surplus and Net Profits, - 400,000  
Deposits, - - - 6,500,000

Especially well equipped to handle the business of Southern Banks, Corporations, and Individuals and Manufacturers. We cordially invite correspondence and interviews.

**The National Exchange Bank**

OF BALTIMORE, MD.  
Hopkins Place, German and Liberty Streets  
Capital, \$1,000,000  
July 15th, 1908, Surplus and Profits, \$671,631.60

**OFFICERS**

WALDO NEWCOMER, President.  
SUMMERFIELD PALDWIN, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
C. G. MORGAN, Asst. Cashier.

Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited

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**Fidelity and Deposit Company of Maryland**

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ACCOUNTANTS AND AUDITORS  
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Certified Public Accountant. WASHINGTON, D. C.

**Securities Corporation General**

1338 Chestnut Street, Philadelphia  
111 Broadway, New York

Authorized Capital  
\$10,000,000

Issued  
\$4,853,125

Deals and invests in public service securities. Participates in security underwritings. Finances public service enterprises.

P. M. CHANDLER, President  
W. H. SHARP, Vice-President  
G. W. ROBERTSON, Vice-President  
J. K. TRIMBLE, Sec'y & Treas.

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J. G. WHITE, New York  
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**Palmetto National Bank**

COLUMBIA, S. C.

Capital  
\$250,000.00

Deposits  
\$2,700,000.00

Surplus and Profits  
\$150,000.00

WILIE JONES, President  
JOHN JACOB SEIBELS, Vice-President  
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J. P. MATTHEWS, Cashier  
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STATE, CITY AND CORPORATION FINANCING  
Entire Issues Bought and Sold

**Mercantile Trust & Deposit Company OF BALTIMORE**

Capital - - - \$1,500,000  
Surplus - - - \$3,000,000

Thoroughly organized to exercise all Banking and Trust Company functions. Correspondent for Banks and Trust Companies.

A. H. S. POST - - President

Tex., Gatesville.—State Bank & Trust Co. is organized; capital \$50,000. Business is to begin in about three weeks.

Tex., Orange.—Chartered: Orange State Bank, recently noted, capital \$25,000, is about to begin business. A. M. H. Stark, J. T. Stark, V. H. Stark, Mrs. D. J. Stark and others, organizers.

Tex., Poyner.—Poyner Bank, unincorporated, capital \$3000, organized: B. Sigler, Pres.; W. H. Foster, V. P.; C. R. Scarborough, Cash. Business to begin Sept. 27.

Tex., Quitman.—Farmers & Merchants' State Bank has applied for charter; capital \$20,000. Promoters, Alf Norris, Winsboro; Dr. J. B. Goldsmith, Quitman; Sheriff Williams and H. F. Cathey of Wood county. Dr. Goldsmith will be president and R. W. Low cashier.

Tex., Walburg.—Walburg State Bank approved; capital \$15,000; Henry Deering, Sr., Pres.; A. W. Speckels, Secy.

Va., Bristol.—Union Loan & Security Co. inc'd.; capital \$50,000; Eugene McIntyre, Pres.; Z. A. Clough, Secy.; both of Minneapolis, Minn.

### NEW SECURITIES.

Ala., Brundidge.—Voted: \$10,000 5 per cent. 20-year sewer bonds. Bids are to be asked in about 30 days. Address The Mayor.

Ala., Demopolis.—Bids received Aug. 30 for \$20,000 10-year school-building bonds were rejected; denomination \$1000; dated Aug. 28, 1913; maturity Aug. 28, 1923; Jesse B. Hearn, Mayor.

Fla., Arcadia.—Sept. 13 election will be held to vote on \$75,000 of school subdistrict bonds for erection of high-school equipment, repairs, etc. Address County Board of Education; local Trustees, John L. Jones, Chmn.; C. H. Mitchell, Secy., and T. B. King.

Fla., Lake City.—Aug. 26 city voted \$89,000 5 per cent. 30-year bonds to take up outstanding city scrip and to build city hall; denomination \$1000; dated Oct. 1, 1913; maturity Oct. 1, 1943. Date for opening bids not yet decided. Address Board of Bond Trustees; W. H. Wilson, City Attorney.

Fla., Newberry.—Voted: Bonds for water and light plant.

Fla., Palatka.—Sept. 9 city will vote on \$75,000 school bonds. Address Board of Education.

Fla., Plant City.—The \$35,000 of sewer, \$35,000 paving and \$5000 drainage bonds purchased last May by Sidney Switzer & Co., Toledo, O. (previously noted) have been validated. W. L. Lowry is City Clerk.

Fla., Tampa.—Twombly & Henney of New York are reported to have been awarded \$12,000 of bonds for sewer work. D. B. McKay, Chmn. Board of Public Works.

Fla., Tampa.—Bids will be opened Dec. 1 for \$12,000 6 per cent. school district bonds, Hillsborough county; denomination \$1000; dated Jan. 1, 1914. Address Marshall Moore.

Fla., Tampa.—Voted: \$13,000 of 6 per cent. bonds of College Hill Special School Dist.; denomination \$100; Marshall Moore, Secy. Hillsborough County Board of Public Instruction.

Fla., Tampa.—As soon as the \$1,000,000 of Hillsborough county road bonds are validated they will be placed on the market. Address County Commrs.

Ky., Hickman.—Election will be held in November to vote on \$15,000 levee bonds. Address The Mayor.

Ky., Winchester.—City Council has been petitioned to issue \$100,000 school-building bonds. Address City Commrs.

La., Lake Charles.—Oct. 16 election will be held in Calcasieu parish to vote on \$900,000 of good-roads bonds. Address Parish Clerk.

La., Plaquemine.—Sept. 22 election will be held in Iberville parish to vote on \$46,000 of 5 per cent. 20-year bonds of Road District No. 2. W. A. Holloway is Pres. Police Jury.

Md., Cumberland.—Voted: \$10,000 of Allegany county road-improvement bonds, and plans are being made to place them on the market. Address County Commrs.

Miss., Leakesville.—Oct. 6 bids will be asked for \$3500 school improvement bonds. Address Board of Suprs. Greene County.

Miss., Pascagoula.—Board of Suprs. of Jackson County has authorized the issuing

of \$10,000 of Dist. No. 3 and \$15,000 Dist. No. 4 road bonds.

Miss., Tutwiler.—Bids received until 2:30 P. M. Oct. 7 by J. L. Donald, Town Clerk, for \$13,500 6 per cent. 20-year water-works and sewer bonds.

Miss., Vicksburg.—Bids are to be asked the first week in Oct. for \$300,000 Warren county road bonds. Address Board of Suprs.

Miss., Waynesboro.—Board of Suprs. Wayne county has ordered the issuing and sale of \$100,000 5 per cent. 10-20-year road bonds.

Miss., Waynesboro.—R. Sumrall, Wayne county, has purchased \$1500 of 6 per cent. Amazon Consolidated Separate School, Wayne county, bonds, leaving \$1000 to be sold.

Miss., Wesson.—The Bank of Wesson is reported to have purchased \$30,000 of Copiah county road bonds. Address Board of Suprs.

Mo., Boonville.—Bids will be received until 4 P. M. Sept. 15 by Chas. W. Whitlow, City Treas., for \$25,000 of street-improvement bonds; Chas. G. Miller City Clerk.

N. C., Blowing Rock.—Steps are being taken to issue water-works bonds. Address Town Commrs.

N. C., Charlotte.—Mayer, Deppe & Walter, Cincinnati, have purchased at a premium \$50,000 to \$75,000 of 6 per cent. street-paving bonds. Address Finance Commrs.

N. C., Gatesville.—Bids will be received until noon Oct. 6 for \$5000 5 per cent. 40-year Holly Grove township (Gates county) road bonds. Address T. E. Hofter, ex-officio clerk to Board County Commrs.

N. C., Goldsboro.—Bids will be received by Board of County Commrs., Wayne county, I. F. Ormond, Chmn., until Oct. 6 for \$100,000 5 per cent. 20-30-year bonds, dated Sept. 1, 1913; denomination \$1000. Further particulars will be found in the advertising columns.

N. C., Greenville.—Commrs. of Pitt County have ordered the sale of \$50,000 good-roads bonds of Greenville township.

N. C., High Point.—Mercantile Trust Co., Baltimore, has purchased \$20,000 5 per cent. 30-year school bonds.

N. C., Warrenton.—Warren county will vote Sept. 16 on \$200,000 5 per cent. 40-year road bonds; P. M. Stallings, Chmn. Board of County Commissioners; J. A. Dowlin, Clerk.

Okla., Oklahoma City.—At 2 P. M. Sept. 15 Robert Dunlop, State Treasurer, will sell \$2,907,122.19 of 4½ per cent. funding bonds; denomination \$1000, \$500 and \$100; dated Oct. 1, 1913; maturity Oct. 1, 1924.

Tenn., Memphis.—Bond experts have declared valid \$1,500,000 of 4 per cent. long-time flood-protection bonds. This issue will be coupled with a 6 per cent. short-time improvement issue of \$200,000. It is proposed to place the bonds on the market jointly. Ennis M. Douglas is City Clerk.

Tenn., Nashville.—Potter, Choate & Prentice and Harris, Forbes & Co., heading a syndicate of bankers, have purchased State of Tennessee temporary loan refunding 5 per cent. bonds issued to retire \$1,600,000 penitentiary bonds and redemption of bonds maturing Oct. 1.

Tex., Alice.—Jim Wells county proposes to vote on road bonds. Address County Commrs.

Tex., Anahuac.—Voted: \$100,000 5 per cent. 10-40-year Chambers county road bonds. Address County Commrs.

Tex., Archer City.—Voted: \$7000 water-works bonds. Address The Mayor.

Tex., Austin.—The Attorney-General has approved the following bonds: \$2000 5 per cent. 20-year bonds Brazoria Common School Dist. No. 10; \$1200 5 per cent. 5-20-year bonds Leon Common School Dist. No. 10; \$1500 5 per cent. 10-20-year bonds Lamar Common School Dist. No. 79; \$8000 5 per cent. 2-40-year bonds Donnelly Common School Dist. No. 2; \$1000 5 per cent. 10-20-year bonds Scurry Common School Dist. No. 34; \$1500 5 per cent. 20-year bonds Denton Common School Dist. No. 4; \$15,000 5 per cent. 5-40-year bonds Hartley Common School Dist. No. 1; \$50,000 5 per cent. bonds Bowie Levee and Drainage No. 1 improvement bonds; \$18,000 of water-works bonds of Crockett.

Tex., Bonham.—Franklin county will probably vote on road bonds. Address County Commrs.

Tex., Burnet.—Burnet County contem-

plates issuing \$30,000 bridge bonds. Address County Commrs.

Tex., Childress.—Defeated: \$15,000 street and sewer bonds. Address The Mayor.

Tex., Clarendon.—Bids received Aug. 25 for \$16,000 5 per cent. 20-40-year water-works bonds rejected. New bids are to be asked. E. H. Powell, City Secy.

Tex., Clarksville.—Red River county contemplates voting on \$200,000 road bonds. Address County Commrs.

Tex., Comanche.—Comanche county will vote on bonds for road improvements. Address County Commrs.

Tex., Corpus Christi.—Voted: \$165,000 Nueces county causeway bonds. Address County Commrs.

Tex., Crosbyton.—P. L. Parrish, County Judge, is receiving bids for \$40,000 5 per cent. 10-40-year Crosby county courthouse and jail bonds.

Tex., Edna.—Oct. 4 Jackson county will vote on road bonds. Address County Commrs.

Tex., Houston.—Bids will be received until noon Oct. 6 for \$800,000 of 1-20-year street improvement and \$400,000 of 1-30-year bridge improvement 5 per cent. bonds; dated Nov. 1, 1913; Ben Campbell, Mayor. Further particulars will be found in advertising columns.

Tex., Houston Heights.—Dec. 18 election will be held to vote on \$200,000 of sewer and \$20,000 of city hall bonds. Address The Mayor.

Tex., Lockhart.—An election will probably be held in Caldwell county to vote on \$50,000 road bonds, Precinct No. 1. Address County Commrs.

Tex., Port Lavaca.—Sept. 20 Calhoun county will vote on \$5000 road bonds. Address County Commrs.

Tex., Refugio.—Voted: \$25,000 Dist. No. 2, Refugio county, bonds. Address County Commrs.

Tex., Rockport.—Voted: \$155,000 Aransas county causeway bonds. Address County Commrs.

Tex., Runge.—\$20,000 water and light bonds voted Aug. 27 are 10-40-year 5 per cents. J. F. Murray, City Clerk.

Tex., Somerville.—City contemplates issuing \$10,000 water-works bonds. Address The Mayor.

Tex., Tyler.—Voted: \$30,000 Bullard Dist. Smith county, road bonds. Address County Commrs.

Tex., Velasco.—Voted: \$75,000 of Velasco

District, Brazoria county, road bonds. Address Road Commrs.

Tex., Wharton.—Election ordered Sept. 14 to vote on \$15,000 sewer-extension bonds. Address The Mayor.

Tex., Yorktown.—\$8000 of 5 per cent. city hall bonds voted Aug. 26 will be for sale immediately after approval by State Attorney-General: T. W. Heinrich, Mayor.

Tex., Waco.—McLennan county contemplates issuing road bonds. Address County Commrs.

Tex., Wharton.—Wharton county will probably vote on \$250,000 road bonds. Address County Commrs.

Va., Bristol.—City Council has decided to issue \$50,000 6 per cent. 10-30-year bonds for grammar and high school. Address F. B. Fitzpatrick. Date for opening bids not yet decided.

Va., Norton.—Bids received until 4 P. M. Sept. 15 for \$10,000 5 per cent. street-improvement bonds; denomination \$500. Address T. M. Pepper, Mayor, or G. A. Smith, chairman finance committee, care First National Bank. Further particulars will be found in advertising columns.

Va., Pulaski.—American Light & Water Co., 512 First National Bank, Chicago, purchased at par \$50,000 of 5 per cent. 20-year sewerage bonds; M. A. Shuff, Chmn. Finance Committee.

Va., Roanoke.—An election will probably be held to vote on \$150,000 of city hall bonds. Address Finance Commrs.

W. Va., Ceredo.—An election will probably be called to vote on \$4500 of bridge bonds. Address Town Commrs.

W. Va., Huntington.—New bids will be opened Sept. 29 for \$180,000 street and sewer improvement and \$20,000 incinerator 5 per cent. bonds; denomination \$500; dated July 1, 1913; maturity July 1, 1943. Address T. S. Scanlon, Finance Commr.

### FINANCIAL NOTES.

Program is completed for the eleventh annual convention of the American Institute of Banking, to be held at Richmond, Va., Sept. 18 and 19.

F. G. Merrill Collateral Bond Corp., Richmond, Va., has filed amendment to charter, increasing capital from \$100,000 to \$200,000.

The Richmond Trust & Savings Co. is doing business in its new home at the northeast corner of 7th and Main Sts.

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